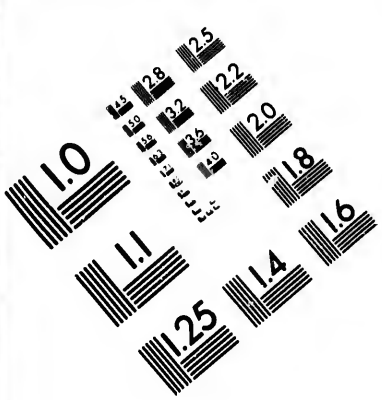

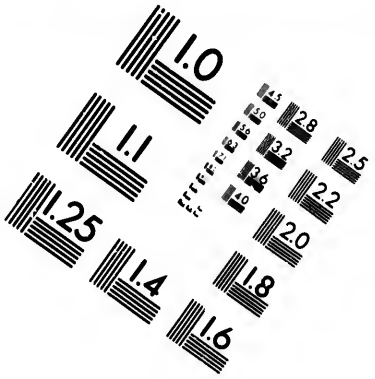

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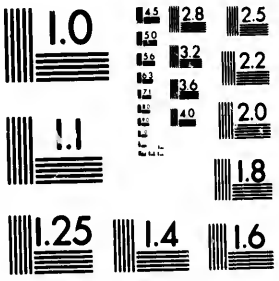

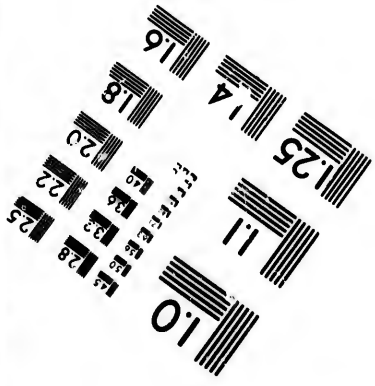

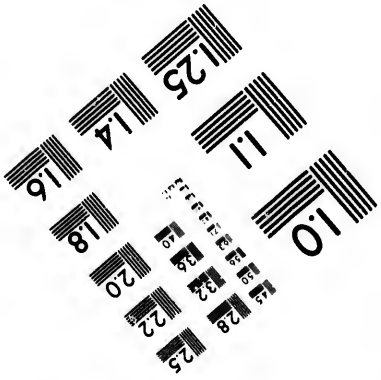

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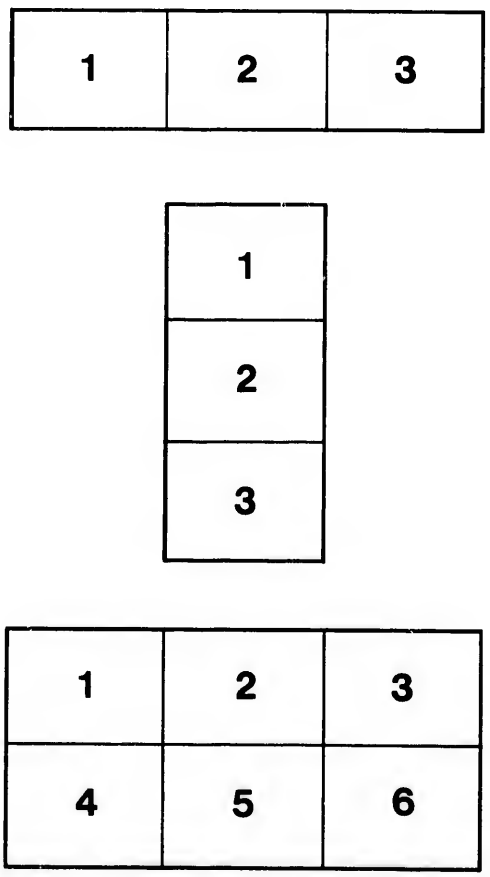

NOTES

ON

PRIMITIVE MAN

IN

ONTARIO.

By DAVID BOYLE.

BEING AN APPENDIX TO THE REPORT OF THE MINISTER OF EDUCATION FOR ONTARIO.

PRINTED BY ORDER OF THE LEGISLATIVE ASSEMBLY.

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Fig. 1. Mask from clay pipe.

From *Primitive Culture*, by E. B. Tylor, vol. ii., p. 400:

"Granted that archæology, leading the student's mind back to remotest known conditions of human life, shows such life to have been of unequivocally savage type; granted that the rough-hewn flint hatchet, dug out from amidst the bones of mammoths in a drift gravel-bed to lie on an ethnologist's writing table, is to him a very type of primitive culture, simple yet crafty, clumsy yet purposeful, low in artistic level yet fairly started on the ascent toward highest development—what then? Of course the history and prehistory of man take their proper places in the general scheme of knowledge. Of course the doctrine of the world-long evolution of civilization is one which philosophic minds will take up with eager interest, as a theme of abstract science. But beyond this, such research has its practical side, as a source of power destined to influence the course of modern ideas and actions. To establish a connection between what uncultured ancient men thought and did, what cultured modern men think and do, is not a matter of inapplicable theoretic knowledge, for it raises the issue, how far are modern opinion and conduct based on the strong ground of soundest modern knowledge, or how far only on such knowledge as was available in the earlier and ruder stages of culture where their types were shaped. It has to be maintained that the earlier history of man has its bearing, almost ignored as that bearing has been by those whom it ought most stringently to effect, on some of the deepest and most vital points of our intellectual, industrial and social state. . . . .

"If we survey the state of educated opinion, not within the limits of some special school, but in the civilized world at large, on such subjects as relate to man, his intellectual and moral nature, his place and function [illegible] his fellow men and in the universe at large, we see existing side by side, as if of equa[illegible], opinions most diverse in real authority. Some vouched for by dir[illegible] and positive evidence, hold their ground as solid truths. Others, though founded on crudest theories of the lower culture, have been so modified under the influence of advancing knowledge, as to afford a satisfactory framework for recognized facts; and positive science, mindful of the origin of its own philosophic schemes, must admit the validity of such a title. Others, lastly, are opinions belonging properly to lower intellectual levels, which have held their place into the higher by mere force of ancestral tradition; these are survivals. Now it is the practical office of ethnography to make known to all whom it may concern the tenure of opinions in the public mind, to show what is received on its own direct evidence, what is ruder ancient doctrine re-shaped to answer modern ends, and what is but time-honored superstition in the garb of modern knowledge."

(1 P.M.)

PREFACE.

Many teachers and others without either time or opportunity to peruse the numerous works that have appeared, and are appearing, on the subject of primitive life in America, and who are particularly desirous to know something about the Indians of our own country, have frequently expressed the wish that such information could be procured in a handy and condensed form. It is for the purpose of supplying this want in a modest way, that the following notes have been prepared, and are now published by the courtesy of Dr. Ross, Minister of Education.

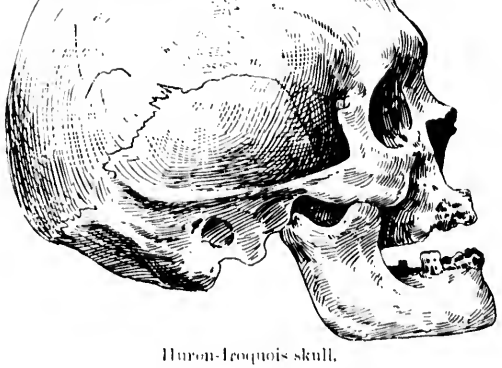
It is not many years since ethnology had an existence, and still fewer since it was thought worthy of a name—now, both it and its sister science archæology are dignified with professorships in the world's best universities; many of the most profound thinkers on both continents are devoting their attention to race problems, and, speaking generally, it is safe to say that intelligent people everywhere are more or less interested in all that relates to early man.

The little we know concerning aboriginal man in Ontario is gathered from the writings of early travellers and missionaries, eked out by what we can deduce from the remains of his work in the shape of embankments, mounds, ossuaries, other burial places, village sites, potteries, and various tools and weapons of bone, horn and stone.

It is deeply to be regretted that the observations of earliest writers seldom penetrated beneath the surface—the modern scientific spirit had yet two or three centuries to await its birth—and now we are reduced to the necessity of wondering and surmising, instead of being able to build on certainties, although it is undoubted that much we could wish to know was unascertainable even by those Europeans who first came into contact with the natives.

Upon archæological researches, therefore we must depend chiefly or wholly for any additional knowledge, and much has already been gained in this way. The provincial collection at the Canadian Institute contains many specimens that show us the Indian's methods of working, his skill in manipulation, his taste in form and design, his patience and persistence, sometimes his ingenuity, his adaptive eye, his fertility in resources, the extent of his trade relations, his warlike spirit, his social status, his superstitious beliefs, his love of finery, his respect for the dead, and even his affection for his children.

Correspondence is solicited with readers in possession of information concerning places connected with old-time Indian occupation.



Huron-Iroquois skull.

WHENCE CAME THE INDIANS?*

As an introduction to the following notes on the ethnology and archæology of Ontario it may not be inappropriate to devote a few pages to a consideration of the much discussed subject—Whence came the Indians? not for the purpose of proposing any new theory, but simply to show the grounds on which claims are based by those who hold this, that, or the other view.

It is tolerably safe to assert that the great majority of those who have given the subject any consideration at all, believe the American aborigines came from Asia, by way of Bering strait. A smaller number think the migration came along a more southerly course from Japan, and others still, that many found their way hither from islands of the Malaysian group to South America and Mexico. On the other hand claims have been set up for the opposite side of the Old World as the source of population. Of these, one that has attracted much attention is based on the fabled existence of the island Atlantis, between the coasts of Africa and America, and one of the latest theories refers to a former land-connection between northern Europe and Greenland, across which the original discoverers of this continent found their way, Greenland itself being at that time a portion of our mainland.

Those who have adopted the theory of an arctic "land-bridge," uniting America with the Old World, either on one side or the other, claim that their conclusions are based on sound geological data. So far as the Americo-Asiatic limits are concerned there is really no necessity for any such supposition, although one may more readily concede its likelihood than in the case of the comparatively immense distance that separates the Greenland from the Norway of to-day. In the former case an elevation of Bering's sea-bed to the extent of one hundred feet would form a land connection, while in the latter there would be required an upward movement of not less than three thousand feet to unite Norway, Iceland, Greenland and the continent of America. The same forces, however, are as capable of performing the greater as the lesser elevation, and it is undoubted that in past ages the land has risen and fallen in many places thousands of feet

But why should we be expected either to give rein to our imagination as to the route by which man found his way to this continent, or to limit it as to the number of his landing places? Upholders of the various theories have, to their own satisfaction, proved the possibility of voluntary and involuntary migrants having reached America, overland and by way of both oceans, from places 7,000 or 8,000 miles apart, and as much as 3,000 miles by sea from their point of departure. Is there anything in reason to make us doubt that there have been two, four, eight, or more points of arrival? On the contrary, is there not much

* "The aboriginal American, as we know him, with his language and legends, his physical and mental peculiarities, his social observances and customs, is most emphatically a native and not an imported article. He belongs to the American continent as strictly as its opossums and armadillos, its maize and its golden-rod, or any members of its aboriginal fauna and flora belong to it. In all probability he came from the Old World at some ancient period, whether pre-glacial or post-glacial, when it was possible to come by land; and here in all probability, until the arrival of white men from Europe, he remained undisturbed by later comers, unless the Eskimos may have been such. There is not a particle of evidence to suggest any connection or intercourse between aboriginal America and Asia within any such period as the last twenty thousand years, except in so far as there may perhaps now and then have been slight surges of Eskimo tribes back and forth across Bering strait."—The Discovery of America, p. 20, by John Fiske, Boston and New York, 1892.

that is actually suggestive of this possibility? Language lends no color to one common origin, neither does physique. In manners and customs there was quite as much variance as could be found among similar savage peoples anywhere else in the world. Their resemblances to each other were human—not continental; the natives were superstitious, vindictive and bloodthirsty, but even in these characteristics there was nothing to indicate a single centre of distribution. A few groups possessed the potentiality of advancement, but the majority were apparently at a standstill, while some seemed to have become degraded from a former, not very high condition.

It is quite true that all this may have been brought about as the result of differentiation from a common stock during a period extending from the ice age to these days, but it is at least quite as reasonable to suppose a variety of origins as the cause of the variations. If we admit the possibility, even at long intervals, of migrations or arrivals from northern Asia northern Europe, the Pacific islands,* China, Japan, and even the mythical Atlantis, we shall meet with fewer difficulties in our study of American ethnology than beset him who attempts to square all his facts with one or other of the popular theories regarding the origin of the Indian. It was surely inevitable that during the course of centuries many enforced voyages should have been made across both oceans to this continent. Modern bravado has shown us how the passage across the Atlantic may be accomplished in an open boat by one man. Leif Eriesen's voyage was more than emulated by a crew that sailed in 1833 from Norway to Chicago in a large open galley constructed on the ancient Viking model. Everyone knows of the 2,000 mile voyage made by Captain Bligh and his companions in a ship's boat, when they were sent adrift by the Bounty mutineers. A friend of my own accomplished the distance between York Factory and England in fourteen days, the vessel measuring only sixty tons, and being deeply laden with fish-oil. It is true that in all these instances, those in command knew where they were going, and except in Bligh's case were accordingly well provided, but it is not at all inconceivable that numerous involuntary trips were made by coast natives across both oceans, and, of course having reached America the voyagers were here to stay.

It is not impossible that Polynesian sea-rovers made occasional long voyages along the coast of Asia establishing settlements, members of which ultimately reached America from northern latitudes either by accident or design.†

However this may be we are to-day no nearer a solution of the vexed question as to *the* origin of the Indians than we were fifty, or four hundred years ago.

No reference has here been made to those who hold that the Indian had an independent origin on this continent. The opinion of Darwin and others on this theory will be found in the quotation from Dr. Brinton following.

---

*In discussing the origin of the Maya Calendar, Prof. Cyrus Thomas writes: "Although the references to the calendars in use among the Polynesians and Melanesians are brief and incomplete, and generally confused from a lack on the part of the writers of a correct knowledge of the system, yet, when carefully studied, they seem to furnish a clue to the origin of the Mexican and Central American calendars." And again, "Be the true explanation what it may, the evidence we have presented of its relation to the Polynesian calendar is too strong to be set aside as merely accidental . . . This, however, is not the place to take up the discussion of the question of contact of the western coast tribes with the Polynesians, except as related to the calendar." The Maya Year, p.58 and 64, by Cyrus Thomas, Washington Government Printing Office, 1894.

Prof. Thomas argues only for Pacific Island *influence* resulting from "contact," and the reasons he offers are very strong. If we grant contact at *any* period sufficiently early to effect given results, we shall find it difficult to avoid a conclusion which necessarily implies much more than the origin of the Maya and Mexican calendars.

† Since this was written I have met with an article by Prof. Otis Tufton Mason, in the American Anthropologist for July, 1894, in which he argues very ingeniously for Malayo-Polynesian movements, of long continuance to America, coast-wise along Asia. Quotations from Prof. Mason's paper are given in what follows.

That the young student may here refresh his memory (or read for the first time what has been said by a few leading writers) on this subject, two or three brief extracts are given.

From *Races of Man*, by Oscar Peschel, p. 400, Appleton, New York, 1876.

"If the human species has peopled the world from a single centre of creation, and if its cradle is not in America, the New World must have received its first inhabitants from the Old. When they entered the Western Continent they were certainly still in a very barbarous state, although their language possessed the rudiments of its future character, and although they may have known how to produce fire, and used bows and arrows. We cannot suppose that these immigrants made long voyages, but at most that they crossed Behring's straits. It is not impossible that the first migrations took place at a time when what is now the channel of Behring's straits was occupied by an isthmus. The climate of those northern shores must then have been much milder than at the present day, for no currents from the frozen ocean could have penetrated into the Pacific. That the severance of Asia from America was, geologically speaking, very recent, is shown by the fact that not only the straits but the sea which bears the name of Behring is extraordinarily shallow, so much so indeed that whalers lie at anchor in the middle of it. But it is always dangerous to rely on geological events which themselves require more accurate proof. We therefore prefer to assume that at the time at which the Asiatics passed over into America, Behring's straits already possessed their present character. . . . . .

"But the proof that the aborigines of America took this road consists in their Mongoloid characters. . . . In only one physical character some American tribes differ from the Asiatic Mongols. A small snub nose with a low bridge is typical in the latter; whereas in the hunting tribes of the United States, and especially among the chiefs, we meet with high noses. It is known, moreover, that the Mexicans and other civilized nations of Central America represented the faces of their gods with very prominent noses, so that some few individuals among these also must have had this marked feature.* . . . . . But a peculiarity which appears only locally and is not common to all the aborigines of the New World cannot be regarded as characteristic of race."†

From *The American Race*, by Dr. D. G. Brinton, p. 20. New York, N. D. C. Hodges, 1891.

"Probably the favorite theory at the present day is that the first inhabitants of the New World came from northeastern Asia, either by the Aleutian islands or across Behring strait. Concerning the Aleutian islands, we know by the evidence of language and archæology that they were first peopled from America and not from Asia. Moreover, they are separated one from the other in places by hundreds of miles of a peculiarly stormy and dangerous sea.‡ It is otherwise with Behring straits. From East Cape in Siberia one can see the American shore, and when first explored the tribes on each side were in frequent communication. No doubt this had been going on for a long time, and thus they had

* Why "some few?" This is as purely gratuitous as is the expression "especially among the chiefs" in the preceding sentence.

† This "peculiarity which appears only locally" has, nevertheless, a very extensive range. It was common among all the tribes on the Atlantic slope, and is frequently met with among the Ojibwas and the plain Indians of all tribes in Canada and the United States. If the statement were well founded it would, even in its limited sense, detract considerably from Peschel's Mongoloid theory.

‡ The nearest of the Aleutian islands to Kamschatka is 253 miles distant. The explorer Behring found the western Aleutians, those nearest the shore, uninhabited. See W. H. Dall, "Origin of the Innuit," pp. 96, 97, in *Contributions to North American Ethnology*, vol. I., Washington, 1877.

influenced each other in blood and culture. But so long as we have any knowledge of the movings at this point, they have been *from* America into Asia, the Eskimos pushing their settlements along the Asian coast.

It will be replied that we should look to a period anterior to the Eskimos. Any migration at that remote epoch is refuted by other considerations. We know that Siberia was not peopled till late in Neolithic times, and what is more, that the vicinity of the strait and the whole coast of Alaska were, till a very modern geologic period, covered by enormous glaciers which would have prevented any communication between the two continents.* These considerations reduce any possible migrations at this point to such as may have taken place long after America, both north and south, possessed a wide-spread population.

The question which should be posed as preliminary to all such speculations is, *when* did man first appear on this isolated continent?"

Dr. Brinton before answering this question discusses what is known as the Great Ice Age during the Quaternary period, and then proceeds: "Such facts as these place it beyond doubt that man lived in both North and South America at the close of the Glacial Age. It is not certain that this close was synchronous in both the northern and southern hemispheres, nor that the American glacier was contemporary with the Ice Age of Europe. The able geologist, Mr. Croll, is of opinion that there was a difference in time, the Ice Age of America was posterior to that of Europe. In any case, the extreme antiquity of man in America is placed beyond cavil. He was here long before either northern Asia or the Polynesian Islands were inhabited, as it is well known they were first populated in Neolithic times.

The question naturally arises, did he not originate upon this continent? The answer to this is given by Charles Darwin in his magistral statement. "Our progenitors diverged from the catarrhine stock of the anthropoids; and the fact that they belonged to this stock clearly shows that they inhabited the Old World."†

We are obliged, therefore, to look for the original home of the American glacial man elsewhere than in America. Some interesting geological facts throw an unexpected light upon our investigations. I have already remarked that in the various recent oscillations of the earth's crust, there occurred about the middle and later glacial epoch an uplift of the northern continent and also of the northern Atlantic basin. In the opinion of Prof. James Geikie this amounted to a vertical elevation of three thousand feet above the present sea-level, and resulted in establishing a continuous land connection between the higher latitudes of the two continents, *which remained until the post-glacial period*‡.

Dr. Habenicht also recognizes this condition of affairs and places it during the "old stone" age in Europe§ which corresponds to the position assigned it by McGee."

Citing other proofs of a geological character, Dr. Brinton says: "In consequence of such facts, the most careful British geologists of to-day hold that the land communication, which certainly existed between Europe and North America

* The evidences of a vast ice-sheet once covering the whole of East Cape are plainly visible. See Dr. I. C. Rosse, *Medical and Anthropological Notes on Alaska*, p. 29, Washington, 1883.

† *The Descent of Man*, p. 155. Dr. Rudolph Hoernes, however, has recently argued that the discovery of such simian forms in the American tertiary as the *Anaptomorphus homunculus*, Cope, renders it probable that the anthropoid ancestor of man lived in North America. The Anaptomorphus was a lemur rather than a monkey, and had a dentition very human in character.

‡ Quoted by G. F. Wright in the *Ice Age in America*, p. 583.

§ He further shows that at that time both northern Russia and northern Siberia were under water, which would effectually dispose of any assumed migration by way of the latter.

in Eocene times by way of Iceland and Greenland, which was then a part of the American continent, continued to exist through the Miocene and Pliocene epochs. This land bridge formed a barrier of separation between the Arctic and Atlantic oceans, so that the temperature of the higher latitudes was much milder than at present."*

In a paper "On the Various Supposed Relations between the American and Asian Races," read by Dr. Brinton before the Anthropological Congress in Chicago, even stronger expression is given by him in opposition to the Asiatic origin of the American race. There is room here to quote only a few sentences. The paper opens thus: "The isolation of the American race from the earliest prehistoric times seems to have been so complete, that any positive evidence that it was perceptibly influenced in its development, either physical or psychical, by any other race, is exceedingly scant, if it exists at all. As for myself, though certainly willing to welcome any clear testimony to such influence, I have been unable to find any which will bear even slight examination;" and with the following pithy and unmistakable language he concludes his paper, after reviewing the "supposed relations" between the races in question: "I maintain therefore, in conclusion, that up to the present time there has not been a single dialect, not an art nor an institution, not a myth or religious rite, not a domesticated plant or animal, not a tool, weapon, game or symbol, in use in America at the time of the discovery, which had been previously imported from Asia, or from any other continent of the Old World."†

Prof. Otis Tufton Mason has recently written on this subject as follows:‡ "There are two possible routes from Asia to America, one of which has often been discussed; the other is, so far as I am aware, to be now for the first time proposed. . . . . .

The route which I now propose might have been nearly all the way by sea. It could have been a continuously used route for centuries. Until interrupted by later civilizations, it might have been travelled over for thousands of years. It is absolutely along a great circle of the earth, the shortest and easiest highway upon a globe."

In a foot-note he adds. "I omit here the supposed route from Europe to Greenland, because it demands certain geological changes, all of which the writer is now trying to avoid; also those lines straight across the parallels from Polynesia, because the food supply was inadequate and for other reasons."

He then proceeds: "The Haida Indians of British Columbia annually voyage as many as five hundred miles southward to Puget Sound, to lay in a supply of dried clams and oysters for their own consumption and for trade.

"Let us imagine a company of their ancestors, no matter how many centuries ago, setting out from the Indian ocean in an open boat, no better than the one they now employ, and governed by the same motives that have always and everywhere impelled men of trade.

*Peschel, already quoted, uses similar language when speaking of Bering strait, and both statements are open to grave doubt. It is generally understood that climatic amelioration in high latitudes is effected by means of ocean currents, and nothing can be plainer than that such currents would be checked by the existence of "land bridges" between the continents as referred to. Geikie, in *The Great Ice Age*, is plain on this point; he says: "Were there no broad currents of warm water setting towards the north, from which the cold, dry winds, on their descent to the sea level, might receive warmth and moisture, there is good reason to believe that the temperature of the northern hemisphere would be greatly depressed, and the cold of the Arctic regions might then equal in intensity that of their antipodes." Much more to the same effect follows in chapter VIII, *Cause of Cosmical Changes of Climate*, p. 112, *et seq.*

†Memoirs of the International Congress of Anthropology, p. 145 and p. 151, Chicago, 1894.

‡"Migration and the Food-Quest: a Study in the Peopling of America." *American Anthropologist*, July, 1894. It is unfair to Prof. Mason to quote from him in such piecemeal fashion. Those who are interested should read the whole of his extremely interesting article.

"In order to make the problem of their voyage as simple as possible, let us not imagine any submergence of the ocean bed, nor any geological nor physiographical changes, nor any accidents out of the daily human experience. We may be allowed to restore to the waters and to the land such creatures as we know to have been destroyed out of them in recent centuries by the exigencies of enormously multiplied populations and the demands of modern commerce, but no more. It will make our inquiry much simpler if we have no experiences introduced or imagined that any man may not repeat at his leisure."

Prof. Mason then goes on most methodically and in the true scientific spirit, to a consideration of the "Necessary Conditions," under the heads of food-supply, conveyance, currents and highways, winds and temperature, suggestions and barriers, blood, social structure, language, arts, remains and historic evidence, religion and folk-lore, and modern witnesses. These topics are skilfully and dispassionately handled, and with an amount of independence and originality quite refreshing. The following is the concluding paragraph under the head of Testimony of Ethnographers and others: "Finally, I do not think that such cumulative evidence is to be despised. All intelligent travellers are struck with the similarities existing between our west coast Indians and existing eastern Asiatics. It is true that those who have noted these resemblances have resorted to absurd theories to account for them; but false theory and good empiric results are not incompatible. It is well known that our Eskimo have peopled a portion of northeastern Asia, following the dominating instinct for aliment and comfort. The proposition I wish to defend is that this close connection between the two continents has existed for thousands of years, during which the contact between western America and eastern Asia was more and more close and extended and unbroken as we proceed backward in time. Or, to put the matter in another shape, there never was known to history a day when the two continents were not intimately associated. The evidences of the past seem to confirm the opinion that as we go backward in time the geographic conditions were more favorable and the contact more intimate. In conclusion, the author has not here undertaken to do more than clear the way for a specific study of the civilizations of America and those of the Indian ocean. He disclaims any reliance upon continents that have disappeared, upon voyages across the profound sea without food or motive, the accidental stranding of junks, or the aimless wandering of lost tribes. When the continent of America was peopled, it was done by men and women purposely engaged in what all sensible people are now doing, namely, trying to get all the enjoyment possible out of life for their efforts."

There is much in this theory that is worthy of consideration, but it is not wholly unobjectionable. It is undoubted that food-quest is the chief motive in human migrations, as Prof. Mason asserts, and on this very account it is difficult to explain why natives of the Malay archipelago, people living where nature was (and is) so lavish in her food supply, should travel so far to the north for the purpose of improving their condition in this respect.

Again, considerable stress is laid by Mr. Mason, on the statement that the route of travel from the northeastern Indo-Malayan archipelago along the coasts of Asia and America to the basin of the Columbia river, lies "along a great circle of the earth," Modern navigators are fully aware of the advantages that arise from following such a circle, but their knowledge is a deduction from science, verified by experiment with the aid of delicately constructed instruments. Savage man might have pursued long voyages in pirogues and canoes over the ocean for untold centuries without discovering the difference between taking a direct cut and paddling over a great circle. Indeed his empiricism would cer-

tainly have favored the former plan, had any doubt ever entered his mind, which, it is needless to say, was an absolute improbability. If it be merely intended to assert that their line of route along coasts forming a great circle gave the early voyagers an unconscious advantage, even this would count for very little, as they must have made deflections both to reach resting places and to keep in view the landmarks by which they were guided.

It is not clear from Prof. Mason's article whether he pre-supposes the eastern coast of Asia to have been peopled during the early voyages of the Indo-Malays. At all events, it either was, or it was not. If it was not, then the adventurers from the south would take possession bit by bit, until in the course of some centuries they reached Bering's straits. Meanwhile considerable differentiation must have taken place, so much so, that by the time offshoots from these settlements reached America, the variance between them and the pioneer voyagers would necessarily be very great, in language by natural laws, in manners and customs as the result of changed environment. If, however, we are to understand that, peopled or not peopled as this coast may have been, the pioneer adventurers pursued continuous and consecutive voyages from the Malayan archipelago along the eastern coast of Asia to the western coast of North America, we must hesitate before acknowledging either its probability or its possibility.

One more point in Prof. Mason's paper may be considered. In his foot note, which has here been quoted, he avows his intention of trying to avoid anything that "demands certain geological changes," and elsewhere he says "let us not imagine any submergence of the ocean bed, nor any geological nor physiographical changes, nor any accidents out of the daily human experience." This is very good, but does he not overlook these conditions when he writes, "The evidences of the past seem to confirm the opinion that as we go backward in time the geographic conditions were more favorable and the contact more intimate?"

It is not easy to conceive of more favorable geographic conditions, without some such corresponding geological or physiographical changes as he very properly objects to admit.

Prof. Mason's theory is a novel and ingenious one, and opens up a wide field for argument and consideration.

Dr. Cyrus Thomas, in the last Report of the Bureau of Ethnology for 1890-91, says: "The general tendency of the more recent opinions in regard to the peopling of the continent is that it was at least partly from the Atlantic side. This is shown by the fact that recent authorities, abandoning the more generally received theory that the original population came from the Pacific side, are inclined to look to Europe as the original source." After quoting from Dr. Brinton, who, as has already been seen takes the latter view, Dr. Thomas says: "Dr. Horatio Hale is inclined to substantially the same view, though somewhat reserved. The theory does not require the moulding process referred to, as the settlers, according to his belief, were of one race and received thereafter no intrusive element. . . . . It is highly probable that a more thorough and comprehensive study of all the data will show, as appears to be indicated by archæology that the truth lies between these opposite views; in other words, will lead to the conclusion that the continent was peopled from two sources, one part coming to the Atlantic coast, the other to the Pacific side."

ABORIGINES OF ONTARIO.

By far the greater part of the area within the limits of Ontario was occupied by various tribes belonging to the Algonkian family. Next in point of territorial extent was the country of the Neuters, or Attiwandarons, stretching along the north shore of Lake Erie, and last, but really of most importance, though least in extent of possessed country, were the Hurons, whose domain was within the small and irregularly quadrangular peninsula lying between Nottawasaga bay and Lake Simcoe. This, at all events, was the situation when French missionaries and traders first penetrated to the great lakes, but for how long previous it is impossible to say. As a result of Indian warfare, whole tribes were often exterminated or absorbed, and their country re-occupied by others or left wholly desolate, within a comparatively few years. In Ontario the Algonkins appear to have been represented by a few tribes and bands in the Ottawa valley, about Lake Nipissing, and along the north shores of Huron and Superior. East, south and northwest they were more numerous. "They were Algonkins who greeted Jacques Cartier as his ships ascended the St. Lawrence. The first British colonist found savages of the same race hunting and fishing along the coasts and inlets of Virginia; and it was the daughter of an Algonkin chief who interceded with her father for the life of the adventurous Englishman. They were Algonkins who . . . waged war against the Puritans of New England. . . . They were Algonkins who, under the great tree at Kensington, made the covenant with William Penn; and when French Jesuits and fur-traders explored the Wabash and the Ohio, they found their valleys tenanted by the same far extended race. At the present day the traveller, perchance, may find them pitching their bark lodges along the beach at Mackinaw, spearing fish among the rapids of St. Mary's, or skimming the waves of Lake Superior in their birch canoes."*

The foregoing quotation suffices to show how widely spread were people of this great family, but the opening sentence, if taken by itself, would lead us to conclude that the Algonkins were the only Indians with whom Cartier came into contact in 1535. Such, however, is not the general opinion. Dr. Horatio Hale says: "Cartier found Indians of the Huron-Iroquois stock at Hochelaga, and Stadacone, now the sites of Montreal and Quebec. Centuries before his time, according to the native tradition, the ancestors of the Huron-Iroquois family had dwelt in this locality, or still further east and nearer to the river's mouth. As their numbers increased, dissensions arose. The hive swarmed, and band after band moved off to the west and south."† This is a subject to which Dr. Hale has devoted much attention, and in a paper prepared by him for the World's Congress of Anthropology, held in Chicago in 1893, he cites at length the traditions referred to, which account for the movement of the Huron-Iroquois from their homes on the St. Lawrence to the shores of Lake Huron.

"Chief Mandorong," of the Wyandot Anderdon Reserve in Essex county, he says, "gave me an account of the origin of the war between the Hurons and the Iroquois, which caused his people to leave their eastern abode. The two com-

* Parkman's Conspiracy of Pontiac, p. 29. † The Iroquois Book of Rites, p. 11.

munities were living near each other, beside the mountain from which their ancestors had issued.* . . . . To prevent differences, the chiefs had forbidden the people of the two tribes to intermarry. An Iroquois warrior at length transgressed this interdict, and married a Huron woman. She incurred his anger by some misconduct, and was killed by him. The chiefs of the two tribes held a conference, and agreed that, as she seemed to have merited her fate, her husband should go unpunished. This decision, however, did not satisfy her kinsmen. One of them went secretly into the country of the Iroquois, and killed a man of that people. Thereupon a war arose between the two nations. Many conflicts took place, in which the Hurons generally had the best. At last, however, by an act of treachery, the Iroquois got possession of the Huron town during a time, when the men were absent from it, holding a council elsewhere, and killed all the women and children. When the Huron warriors returned and found their wives and children massacred, their grief and wrath knew no bounds. They pursued and overtook the murderers (as the chief affirmed) and slew them to the last man. They then quitted the mountain near Quebec, and scattered themselves over the country. This statement may be taken as sufficient evidence that what they had suffered was really an overwhelming defeat. . . . . He further said that the misssionaries were in the country at the time of the final dispersion, though not at the beginning of the war."†

Peter Doyentate Clarke, a half-breed Wyandot, says there are several accounts of what led to the enmity between the Hurons and the Iroquois, and mentions particularly the belief of some, "that it commenced about a Seneca maiden and a chief's son." Whatever the cause may have been, the result was that those afterwards known as Hurons and Wyandots left their abodes on the St. Lawrence and set out westwards. Their course lay along the southern shore of Lake Ontario, and when they reached Niagara, Clarke says they remained there some time before "migrating northward to where the city of Toronto now stands." At this point they were still too near their Iroquois foe, and so removed to the shores of the Georgian bay. Hale thus summarizes this part of Clarke's story: "Here they found game abundant, and abode for many years. And here they were joined by a band of their own people, who had remained on the Ottawa river. These doubtless composed that branch of the Huron nation which had separated from the Tionnontates on the overthrow of the Hochelagan dominion, and had retreated from Montreal up the Ottawa river."‡

Dr. Hale is of opinion not only that the Hurons were the "older members of the group" known as the Iroquoian or Huron-Iroquois family, but that the Tionnontates, or Tobacco Nation, were the oldest among the clans of the Hurons. "This stock," he says, "comprised the Hurons or Wyandots, the Attiwandaronks or Neutral Nation, the Iroquois, the Eries, the Andastes or Conestogas, the Tuscaroras, and some smaller bands. The tribes of this family occupied a long, irregular area of inland territory, stretching from Canada to North Carolina. The northern nations were all clustered about the Great Lakes. The southern bands held the fertile valleys bordering the head-waters of the rivers which flowed from the Allegheny mountains. The languages of all the 9 tribes showed a close affinity. There can be no doubt that their ancestors formed one body, and indeed dwelt at one time (as has been well said of the ancestors of the Indo-European populations) under one roof. There was a Huron-Iroquois family pair, from which all

* It is not an uncommon belief among primitive peoples that they originated from a hill, or came out of the earth.

† The Fall of Hochelaga, by Horatio Hale, in the Journal of American Folk-Lore, January-March, 1894.

‡ The Fall of Hochelaga, by H. Hale, in the American Journal of Folk-Lore, p. 12, for January-March, 1893.

these tribes were descended. In what part of the world this ancestral household resided is a question which admits of no reply, except from the merest conjecture. But the evidence of language, so far as it has yet been examined, seems to show that the Huron clans were the older members of the group; and the clear and positive traditions of all the surviving tribes—Hurons, Iroquois and Tuscaroras—point to the Lower St. Lawrence as the earliest abode of the stock."*

It is probable that the Neuters or Attiwandarons were among the first to leave the main body. Regarding their movement there is not even a tradition, but their situation beyond the most westerly of the Iroquois, and the fact that they had no share in the Iroquois-Huron feuds, point to an earlier and wholly independent migration. It is known also that their language varied but slightly from that of the Hurons, which, as we have seen, there is reason to regard as the parent tongue, and the inference is that their separation must have taken place from the Wyandot side of the mountain down by the sea, long before the great disruption compelled the older clans to seek a refuge on the Georgian bay.

After the extermination of the Hurons and the Neuters by the Iroquois in 1649 and 1650 respectively, the Ojibwas (of various tribes and clans) gradually took possession of the Ontario peninsula formed by the Great Lakes. The Iroquois, however, did not readily give up this territory, according to the current belief of the Ojibwas, by more than one of whom I have been assured that the claim was ultimately settled by a great battle, in which the Iroquois were defeated, when by solemn treaty both parties agreed to be at peace forever.

However this may be, it is well known that when Canada became British all the Indians with whom the imperial and provincial governments had to deal in what is now Ontario, were Algonkins.

SOCIAL CONDITION.

The every-day life of the Canadian Indian could not have been, on the whole, an ideally happy one. His wigwam or his longhouse was a poorly constructed dwelling of boughs, bark and skins, affording but inadequate shelter from the elements. Food was no doubt tolerably plentiful,† but as providence was not one of his characteristics, he must have experienced many periods of privation, especially during winter. The Hurons, indeed, are credited with a measure of foresight in laying up small quantities of corn in *caches*, or holes in the ground; but the more unsettled Algonkins to the north seem to have depended wholly on the chase, and that only from day to day. In seasons of cold and scarcity it must often have fared badly with the very young, the very old, and those who were unwell. Everything tended to cut off the weaklings. The most prevalent diseases were malarial fevers, inflam-

* Iroquois Book of Rites, p. 10.

† Parkman says, Jesuits of North America, page xxxi; "There was little game in the Huron country; and here, as among the Iroquois, the staple of food was Indian corn cooked without salt in a variety of ways, each more odious than the last."

It is quite safe to discredit this statement regarding the scarcity of game in the Huron country, unless during such exceptional seasons as occur in every country. With luxuriant forests of maple, beech, elm and pine, an abundant supply of water, wide stretches of fertile plain, and numerous glens in the upland section known to us as the Blue mountains, it is incredible that, as a rule, "there was little game in the Huron country."

Even the statement made by Gabriel Sagard one of the first missionaries, that "meat was so rare with us that we often passed six weeks and two whole months without tasting a bit, unless a small piece of dog, bear, or fowl given to us at banquets," offers no evidence in favor of Parkman's general declaration.

In the Neutral and Algonkin countries also, there was undoubtedly an abundance of game.

mations, rheumatism, and affections of the eye. Toothache was not unknown, judging from the presence of decayed teeth found in skulls. Perhaps indigestion was a frequent cause of trouble, taking into account their practice of gorging themselves when opportunity offered.

Their clothing of skins was worn day and night as long as it was needful, or until it fell to pieces. Cleanliness was not one of their virtues, and we may imagine their pleasure when the time arrived that enabled them to rove through the woods free from such incumbrances as heavy furs, snow-shoes, and even moccasins. Their summer garb was scanty. The men wore little beyond belts and shoulder-straps to which were attached their medicine-bags, tobacco-pouches, pipes, scalp-knives and quivers. By way of decoration, one or more feathers in the hair, a disc of shell, bone, or stone beads, a gorget of blue slate, and sometimes ear-drops of shell or stone rendered them not only presentable but ready for the fray or for the hunt. For the former and for ceremonial purposes, however, they usually prepared themselves with a liberal coat of paint.* This consisted of earths, charcoal, and vegetable juices. So recently as 1747 (nearly one hundred years after their dispersal), Peter Kalm mentions having seen at Quebec some tattooed Hurons of whom he says, "Many of them have figures in the face, and on the whole body, which are *stained* into the skin, so as to be indelible. These figures are commonly black; some have a snake painted in each cheek, some have several crosses, some an arrow, others the sun, or anything else their imagination leads them to. They have such figures likewise on the breast, thighs and other parts of the body."†

Besides fishing, hunting and fighting, the occupations of the men consisted in building wigwams, making bark canoes, war-clubs, bows, arrows, flaked stone implements of various kinds; axes or tomahawks, and chisels; (both now often referred to as "skinners"), gouges, (so-called); pipes of clay and stone; shell and stone beads, copper tools and weapons, snowshoes and all those curiously formed and well-finished objects, which we call "ceremonials" or "ceremonial weapons."

To the women was allotted the production of articles of dress, nets, lines, mats, clay vessels, baskets, bone needles, and the preparation of skins for all purposes. In addition to this, they performed such simple agricultural operations as were required in growing small quantities of maize, sunflowers, beans and pumpkins—they assisted in skinning and cutting up the animals—as a matter of course, on them devolved the cooking, such as it was, and the pounding or braying of seeds, nuts, fruits and roots (which they also gathered) for use as food. On the march, or when making a portage, they had to carry their full share of the *impedimenta*, and this not unfrequently in addition to a papoose firmly strapped on their shoulders.‡

*"They likewise paint their faces red, blue, etc., and then they look like the devil himself."—John Megapolensis, 1644. See Appendix K.

†They (the Hurons) practised tattooing, sometimes covering the whole body with indelible devices. When of such extent, the process was very severe; and though no murmur escaped the sufferer, he sometimes died of the effects." Parkman, Jesuits in North America, page xxxiii. "In summer, the men (Neuters) wore no clothing whatever, but were usually tattooed from head to foot with charcoal." Id. page xlv.

The painfullness of the process is here mentioned, but no reference is made to the process itself, which must have consisted in abrading the skin with flint-flakes or shells, and puncturing with bone awls or needles, after which the coloring matter was rubbed into the wounds. The sharp fin-spines of large fish may also have been used. Tattooing, however, was so exceptional as to cause remark when observed. Speaking of the Cenis, a tribe on the Gulf of Mexico coast, Parkman again says: "they tattooed their faces and same parts of their bodies, by pricking powdered charcoal into the skin. The women tattooed the breasts, and this practice was general among them, notwithstanding the pain of the operation, as it was thought very ornamental."—LaSalle and the Discovery of the Great West, foot-note, page 317.

‡It is well known also that the Indian women possessed the art of extracting bright red, blue, green and yellow dyes from vegetable substances—fruits and flowers chiefly—and it is yet practised among those tribes that manufacture chip-baskets, grass-mats, and fancy articles requiring the use of porcupine quills.

FOOD.

The food of the pre-historic Indian consisted of fish, game, maize, other seeds of different kinds including nuts, small fruits like wild grapes and huckleberries, and a variety of roots. Kalm refers to three of the last-mentioned known to the Indians as "hopniss," "katniss," and "taw-ho," which when boiled, "were of equal goodness to potatoes." "Hopniss," he says, "Dr. Linnæus calls the plant *Glycine Apios*," katniss he describes as "a variety of *Sagittaria sagittifolia*," and taw-ho as "the *Arum Virginicum*, or Virginian Wake-robin."*

From a plant called taw-kee, the same authority states that "the Indians pluck the seeds and keep them for eating," and he further informs us that "They (the seeds) cannot be eaten fresh or raw, but must be dried," and after repeated boilings "they ate them like pease."†

This information is probably trustworthy, as it is quite likely that at that date (1749) the red men found it necessary to continue the use of their old-time foods to some extent.

Although Kalm's remarks relate to usages in the latitude of Philadelphia, they were no doubt applicable, with modifications, to all the tribes in this part of the continent. The root of the *Arum* is still well-known to most schoolboys as "Indian turnip," remarkable as it is for its extreme pungency when eaten raw.

They made a coarse kind of bread from pounded or roughly ground maize. This meal was prepared either by being bruised in a hollowed stump, or on a stone. Several good specimens of the latter may be seen in the provincial collection. The writer just quoted states, "on my travels through the country of the Iroquois, they offered me, whenever they desired to treat me well, fresh maize bread, baked in an oblong shape, mixed with dried huckleberries, which lay as close in it as the raisins in a plumb-pudding." It is probable that even at that day the quality of the bread owed something to European influence.‡ According to strictly primitive methods it would simply be a lump of roasted dough, innocent of salt and yeast, but, perhaps, in some cases, containing berries as in a "plumb-pudding." In a semi-fluid state, either raw or cooked, and with or without shreds of meat, it was also eaten. When the unbroken grains of corn were boiled with beans, it was known on the Atlantic coast as *succotash*.§ No doubt similar methods of preparing food were employed by the natives in Ontario, and this would appear all the more reasonable when we remember not only that the Hurons and Neutrals were Iroquois off-shoots,‖ but that bands of the last-named body occupied portions of Ontario at various times.

These remarks on food apply chiefly to the Hurons and Neutrals, for the Algonkins are not known to have cultivated anything. Their scanty supplies of corn, were, with their tobacco, procured from their Huron or Wyandot neighbors. It may, therefore, be taken for granted that in the matter of food the condition

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* "Pomme-blanche, or navet de prairie is a white root, somewhat similar in appearance to a white turnip, botanically *Psoralea esculenta* (Nuttal) sometimes *P. argophylla*. It is a favorite food of the Indians, (Dakota an[d] others) eaten boiled down to a sort of mush or hominy. A forked stick is used in gathering these roots."—Tenth Ann. Rep., Bur. of Ethnol. page 538, by Garrick Mallery, Washington, 1893.

†See Appendix D.E.F.

‡ "Their bread is Indian corn beaten to pieces between two stones, of which they make a cake, and bake it in the ashes; they eat it with venison, turkies, hares, bears, wild cats, their own dogs, etc."
John Megapolensis, in Hazard's State Papers, 1792. Megapolensis wrote his account of the Indians in New Netherlands (New York State) in 1644.

§ "The wise Huron is welcome; he is come to eat his succotash with his brothers of the lakes."—Fenni-more Cooper.

‖ From the point of view that the Iroquois or Six Nations ultimately became the more numerous and powerful people. See quotations from Mr. Hale, pages 12 and 13 *ante*.

of the Algonkins was even less desirable than that of more southern peoples. Roots and small fruits were no doubt on their list, but fish and flesh constituted their principal articles of diet.

All our Indians made pots or kettles of clay, and in these the food was cooked when not roasted, or eaten absolutely raw. The boiling was effected by means of hot stones dropped into the water.

RELIGION.*

Whether or not the superstitions of the Indians were worthy of being dignified as *religion*, one thing is certain, namely, that the belief in a Great Spirit, so often attributed to our red men, is of recent growth—the result, indeed, of European influence. One who lived among the Iroquois when they were engaged in deadly warfare with the Hurons on the one hand, and the French on the other, wrote of them: "They are entire strangers to all religion, but they have . . . . a *Genius* which they put in the place of God, but they do not worship or present offerings to him; they worship and present offerings to the Devil, whom they call *Otskon*, or *Aireskuoni*."† A moment's reflection is enough to mark the absurdity of the last statement, as it is well known that the Otskons, Ottikons, or Okies of the Iroquois and Hurons, corresponded very closely to the Manitous of the Algonkins, comprehending "all forms of supernatural being, from the highest to the lowest, with the exception, possibly, of certain diminutive fairies or hobgoblins, and certain giants and anomalous monsters, who appear under various forms, grotesque and horrible, in the Indian fireside legends."‡

Dean Harris, speaking of the Hurons, says: "They had no religion, having neither altars, priests, temples, nor oblations, and whatever idea they had of God was so hazy and obscure, that it comes not within the range of definition. They, however, believed in the existence of good and bad spirits, and to appease the one and draw upon themselves the favor of the other, offered sacrifices on the slightest provocation. Tobacco was thrown into the fire with the hope that its smoke would be pleasing to an *Oki*, and oil poured upon the water when a storm threatened, with an appeal to the *Manitou* to have pity on them."§ Elsewhere, Dean Harris writes: "They had no idea of God as we understand the word. The sighing of the winds, the melancholy moan of the midnight forest, the clash of thunder, the gleam of lightning, were the voices of the shadow-phantoms that hovered in the air around them." To the foregoing it may be added that every lake, stream and waterfall; every rock, cliff and mountain; wind,¶ cloud, rain and snow; every plant and animal; even every object of their own handiwork had its spirit. Asleep or awake, and always, the Indian was in close contact with the spirit world. Besides these he had a personal or guardian oki or manitou to whom he attributed power to protect him, and to bring him good luck when engaged in warfare or in hunting. Such an oki was usually that of some animal that appeared to him during one of his voluntarily prolonged fasts during boyhood, undertaken for the express purpose of "seeing something." If a bear, he

* See Appendix H.

† A short account of the Maquas Indians in New Netherlands, by John Megapolensis, in Hazard Historical Collection of State Papers.

‡ Parkman's Jesuits of North America. Introduction, p. lxix-lxx.

§ History of the Early Missions in Western Canada, by Very Rev. W. R. Harris, pp. 41-42. Toronto, 1893.

Idem, p. 16.

¶ According to one tradition the west wind was the father of Nanabush.

henceforth carried a bear's claw as his "medicine," or fetich; if a wolf, its tail or its tooth; if a hawk or a wood-pecker, one or more of the feathers.

For the legends of the Huron, Iroquois and Algonkins, regarding Ataentsic, her daughter, and her two grandchildren named Jouskeha and Taouscaron; Tarenyowagon or Hiawatha, Jouskeha's son; Atahocan and Nanabush,* reference may be made to works in which the subject is treated in detail. Among the Indians themselves there was no uniformity of statement or belief regarding these okies or manitous. Their mutual relationships, their offices, and performances as recited to-day, are a mass of contradictions, nor is this to be wondered at when we consider the similar condition of our knowledge relating to Druidism, so-called, and other ancient European cults, and all that we can learn from early writings on this subject goes to show that even before the advent of the white man, Indian traditional belief was wholly unsystematized. Parkman says: "In no Indian language could the early missionaries find a word to express the idea of God. Manitou and Oki meant anything endowed with supernatural powers, from a snakeskin or a greasy Indian conjurer up to Manabozhu and Jouskeha."†

His ideas of immortality were peculiar. Not only would he himself reach the happy hunting ground of the departed, but there he hoped to find the ghosts of everything earthly—woods, rivers, beasts, birds and fish; clubs, knives, bows and arrows, wampum and clay pots. It is no doubt to this belief that we must look for the origin of the custom of placing weapons, tools and utensils in the graves.

MEDICINE-MEN.‡

Intimately associated with the religious belief (if such it may be termed) of the Indians, was the medicine-man. The word *medicine* in this connection is itself a misnomer, derived or corrupted from midē'-wiwin, "an order of shamans among the Ojibwa, professing the power to prophecy, to cure disease, and to confer success in the chase." The medicine-man was to all intents and purposes a conjurer or juggler, and in most cases, it may be said, more or less consciously, an impostor. By means of incantations he professed his ability to heal disease, and it is probably on this account, coupled with the sound of midē'-wiwin, that the present name has been given to him. Illness was occasioned by the possession of a given part of the body by some bad spirit, which it was the duty of the shaman to expel. His methods had no connection with the administration of remedies or the performance of even the simplest surgical operation§; they consisted rather in singing, yelling, beating drums and dancing wildly in the presence of the sick person. Sometimes he applied his mouth to the affected part, either directly or by means of a tube, and pretended to suck therefrom the cause of the disease in the shape of pebbles or pieces of bark. But it was chiefly as an oracle or augur that his services were in demand. In this capacity he had resort to

* Also known as Manibozho, (the Great Hare) Nanibozho, Messou, Mideabon and Hiawatha.

† "The statement that the Indians worship, or ever have worshiped, one 'Great Spirit' or single overruling personal God is erroneous. That philosophical conception is beyond the stage of culture reached by them, and was not found in any tribe previous to missionary influence."
Tenth Annual Report of the Bureau of Ethnology, p. 491. (By Garrick Mallery.) Washington, 1893.

‡ "The expression 'medicine' is too common to be successfully eliminated, though it is altogether misleading. The 'medicine-men' have no connection with therapeutics, feel no pulses, and administer no drugs, or, if sometimes they direct the internal or external use of some secret preparation, it is as a part of superstitious ceremonies, and with main reliance upon these ceremonies." Tenth Rep. p. 275. Mallery.

§ For possible exception to this statement see under "Tubes" in the following pages.

his 'medicine-bag,' containing it might be a snake's skin, a deer's tail, eagle's feathers, a wolf's or bear's tooth, human hair, bright colored mineral substances, any oddly-shaped pebble, especially such as had a hole through it naturally—anything, in fact, which, with or without reason, might suggest itself to him as a fetich, and it is from this consideration rather than as a healer, that we are to regard the medicine-man in connection with the crude religious belief of the Indian.

SECRET SOCIETIES.

Secret societies have existed among the Indians from the time when they were first seen by Europeans until the present day, and the inference is that these organizations were of long standing before the date of discovery. Here the shamans or medicine-men received their "degrees," but there is reason to believe that many of them added individual juggleries for popular and mercenary purposes. Among the Ojibwas there were at least three societies in each of which there were several degrees. The peculiar knowledge imparted to the members, who might be women as well as men, was said to have been bestowed by Nanabush or Manabozhu, who, according to some, was inspired by two great spirits, and to others, by only one—the Kitchi Manitou. Accompanying the information given to the initiates were four presents—a rattle to call the good spirits to the lodge or wigwam in cases of sickness, a drum to please the spirits during their visit and induce them to stay, tobacco as a symbol of friendship, and maize for food. Some legends mention a dog as the fourth gift, and state that the rattle is to call the good spirits, while the drum is to frighten away the bad ones. Col. Garrick Mallery quotes a similar legend.* Parkman says: "An Indian community swarmed with sorcerers, medicine-men and diviners, whose functions were often united in the same person. The sorcerer, by charms, magic songs, magic feasts, and the beating of his drum frightened the evil spirits, and the medicine-man invoked the good ones."

BURIAL CUSTOMS.

Ontario affords examples of various kinds of interment. A good many years ago, it is recorded that a burial mound was opened in the county of Dundas, but with this exception and that of a similar mound on Tidd's Island, near Gananoque, few others have been found. Indeed, it is somewhat remarkable that few graves of any kind have been mentioned as occurring in the whole of the tract occupied by the counties lying between the Ottawa and the St. Lawrence, northeast of Kingston. For a number of years Dr. T. W. Beeman, who has devoted much attention to the archæology of Lanark county, has failed to meet with any graves, and this appears the more strange in view of the fact that evidences are numerous pointing to a large early population. Farther west, in North Hastings, single graves exist on the shore of Baptiste lake. These were first brought to notice by Dr. T. A. Beeman; and in Victoria county, on and near the property of Mr. G. E. Laidlaw, Balsam Lake, there are also numerous graves of this kind. In all likelihood this part of the province, as well as north and east, was occupied by Ojibwas—Montagnais, and Nascopies or Nenenots to whom are attributable those relics that afford apparent indications of Eskimo visits.

In the Huron Nation territory, south of the Georgian bay, both single and communal graves are met with. The former were probably made preparatory to

* Tenth Annual Report of the Bureau of Ethnology, p. 492. Washington, 1893.

the Great Feast of the Dead, when the bones would be removed to a large pit dug on an eminence, and into which were placed sometimes as many as a thousand skeletons—the remains of those who had died during the previous ten or twelve years. Such ossuaries, or bone-pits, have been found at intervals as far south as the county of Wentworth. Along Lake Erie shore one or two burial mounds have been observed, but throughout the greater portion of western Ontario, the mode of interment seems to have been of the single kind. Of this, however, there is little certainty on account of so little attention having been paid to observations relating to such matters when the country was new, and at the present time cultivation has brought the surface to a common level.

In the Rainy River District there are several mounds that seem to have been used for burial purposes. Some of these have been opened, but much might yet be discovered if further examination were made in that part of the country.

With regard to Thunder Bay and Algoma Districts the records are slender but invariably point to single burials.

Much valuable ethnological information remains to be brought together by means of a thorough examination of aboriginal burial places, not only relating to mortuary customs, but to the general mode of life, from such hints as may be yielded in connection with the offerings (if any) placed along with the remains.

EARTHWORKS.

Besides the burial mounds already mentioned the only earthworks of Indian origin in Ontario consist of low banks and ditches enclosing small areas, usually on high ground, but sometimes on that which is low and level. It is generally understood that works of this kind were intended for defensive purposes—that the ditches (when there are any) resulted from digging the earth to form the banks, and that the banks themselves were intended to give support to stakes or pickets, (usually referred to as palisades) closely set together for defensive purposes, hence all places of this kind are known as "forts." It is undoubted that many such banks and ditches have long since been levelled by the settler's plough, and that even the recollection of them is lost, but a few remain from which we may arrive at uncertain conclusions. The most easterly embankment I have examined, in company with Mr. Arthur Brown, public school inspector for Leeds county, is a few miles north of Morrisburgh. Most of it has been plowed down, but portions of it on the road allowance may yet be seen. It is impossible now to arrive at anything like an exact estimate of the original length of this bank, but it is said to have enclosed about five acres of ground.*

On a branch of Batteau creek, in the township of Nottawasaga, there is a bank fifty-five yards long, partly on low ground near the water, but extending some distance up the face of a hill to the south.†

Near the village of Clearville there are extensive banks close to Clear Creek.‡ Within the enclosed area there were several graves; these did not probably belong to the people who made the embankments, but to subsequent possessors

* Report of Canadian Institute for 1891, p. 13.

† Report of Canadian Institute for 1888-9, p. 11.

‡ Report of Canadian Institute for 1888-9, p. 15.

of the ground who had lost all knowledge of its former occupancy. This is (if still uncultivated) one of the most instructive works of the kind in our province.

There is another well-marked line of embankment in Beverley township, and here traces of posts or pickets were found at various places. The enclosed space was slightly oval, measuring one way, one hundred and forty yards across, and at right angles to it, one hundred and eighty yards.*

Throughout the county of Elgin there are examples of earthworks more or less perfect, or were a few years ago, but it is not likely that many of these exist now. In the township of Malahide there are several lines of bank but all are more or less disturbed by the plough.†

The most important system of earthworks, not only in the county of Elgin but in Ontario, is to be found on the farm of Mr. Chester Henderson, Southwold. It consists of a double bank and ditch, enclosing an elliptical area, the longer diameter of which is 130 yards, and the shorter 110 yards from base to base of the outer slopes. A small stream (once, no doubt, much larger than it now is) trickles along the west side of the enclosed ground, and for about half of its course before leaving the "fort" towards the northwest, has cut for itself a little gully about seven feet at the deepest part below the general level, but with this exception the situation is totally devoid of anything that may be regarded as a natural defence, the rest of the surface being almost flat, both within and without the banks. Ash-heaps have been found at intervals within the embankment. Openings made at different places revealed no signs of posts or palisades.

As this is probably the best preserved and most distinctly marked structure of its kind in Ontario, steps should be taken to preserve it from the plough. Its present owner has shown his good sense in permitting the land to remain uncultivated, but there is no warrant at all as to the future. For a few hundred dollars the Elgin county council could make these earthworks public property, and thus assure their preservation for ever. Every year adds to the interest that pertains to places of this kind, and it would be a real loss should the Southwold "Fort" share the fate of similar earthworks in other parts of the country.

POTTERY.‡

In the evolution of ideas leading to the production of vessels to contain fluids, there does not appear to have been so much uniformity among savage peoples as along some other lines. We are on tolerably safe ground in venturing the supposition that the first thoughts on this subject arose in connection with drinking. From a prone position to bring the mouth on a level with the water it is easy to conceive that circumstances and convenience would speedily suggest as an alternative, raising the water to the month in the hollow of the hand. The next step would naturally be to supply a substitute for the hand, and it is at this point in all probability that divergences of adaptation took their rise. In

* Report of Canadian Institute for 1886-7, p. 11.

† Report of Canadian Institute for 1891, p. 11.

‡ "Scientific writers long since recognized a general difference between savagery and barbarism, but Mr. Morgan was the first to suggest a really useful criterion for distinguishing between them. His criterion is the making of pottery; and his reason for selecting it is that the making of pottery is something that presupposes village life and more or less progress in the simpler arts."

warm countries, broad leaves, gourds, bamboos and large shells could be utilized as dippers. Higher latitudes would afford as suggestions pieces of bark and hollow chips, although the latter would rarely be procurable. Some shells, too, might have been employed.

To form a fairly serviceable cup from a naturally hollowed piece of bark, it is only necessary to turn up the ends slightly.* Such a simple vessel may have suggested the production of a superior article by forming a hollow in a piece of solid wood, or in a suitable bit of stone. In either case this could have been accomplished by persistent scraping with flakes of flint or other hard mineral substances. If the art of reduction by pecking had been discovered, it would no doubt have been applied in such a case, but it is scarcely likely that at this stage

Fig. 2. One-third diameter.

man as a mechanic had advanced so far. What has the appearance of more probability is that the aid of fire would be sought, so far as wood was concerned. Indeed, it is not at all improbable that accidental charring first afforded a hint towards making use of wood as a vessel. Given a cavity thus formed, followed by a shower of rain, and the idea is complete, as the further removal of the charred portion would soon be effected by usage, affording in this way another hint towards artificial deepening. Whatever the steps may have been by which this stage was reached, it is quite certain that it was reached, and it is probable that one of the

* Dablon referring to the discovery of copper on Lake Superior, says: "The Indians wishing to boil their food in a vessel of bark, gathered stones on the shore, heated them red hot, and threw them in, but presently discovered them to be pure copper." Relation, 1670.

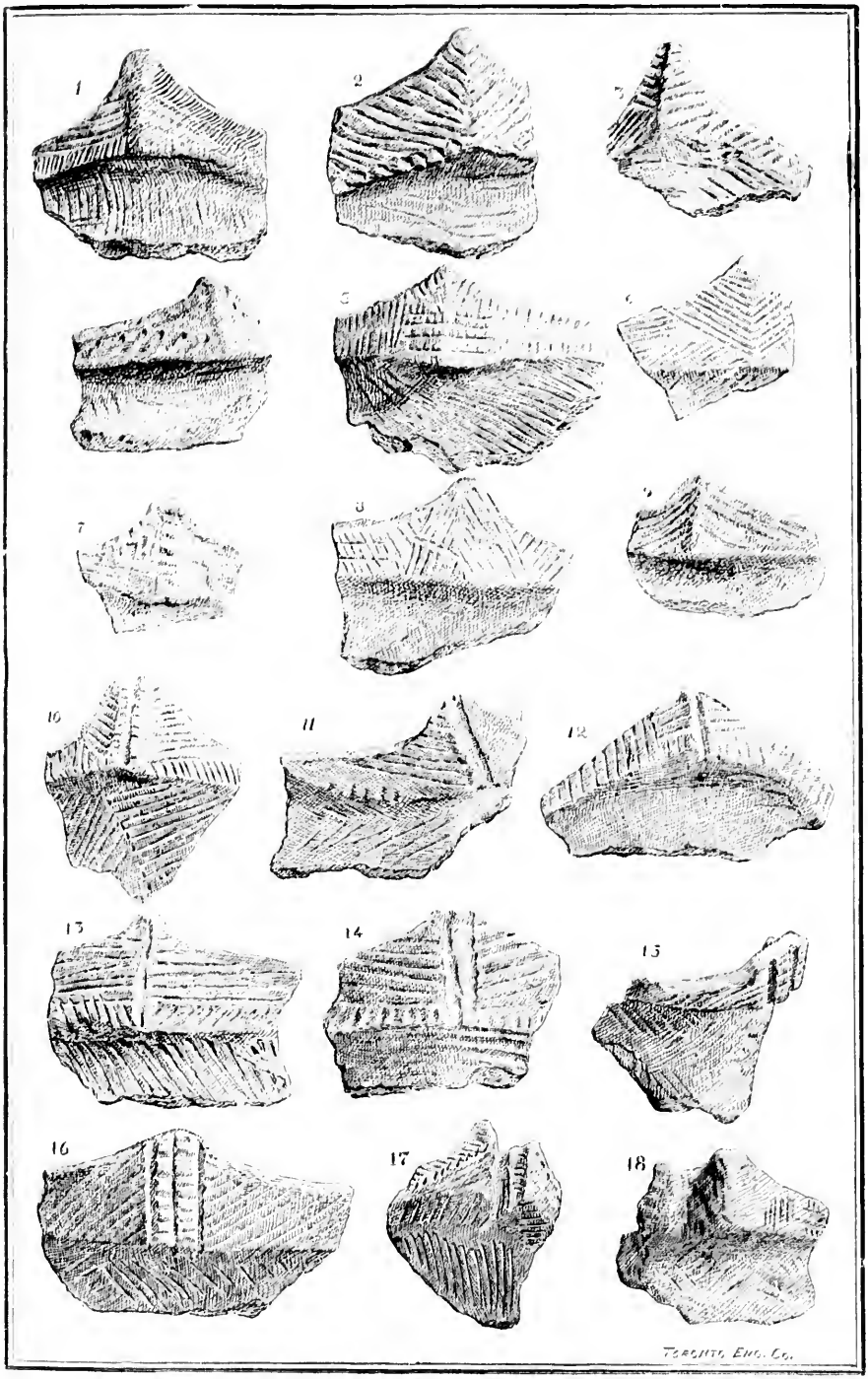


Fig. 3. Patterns on fragments of pottery.

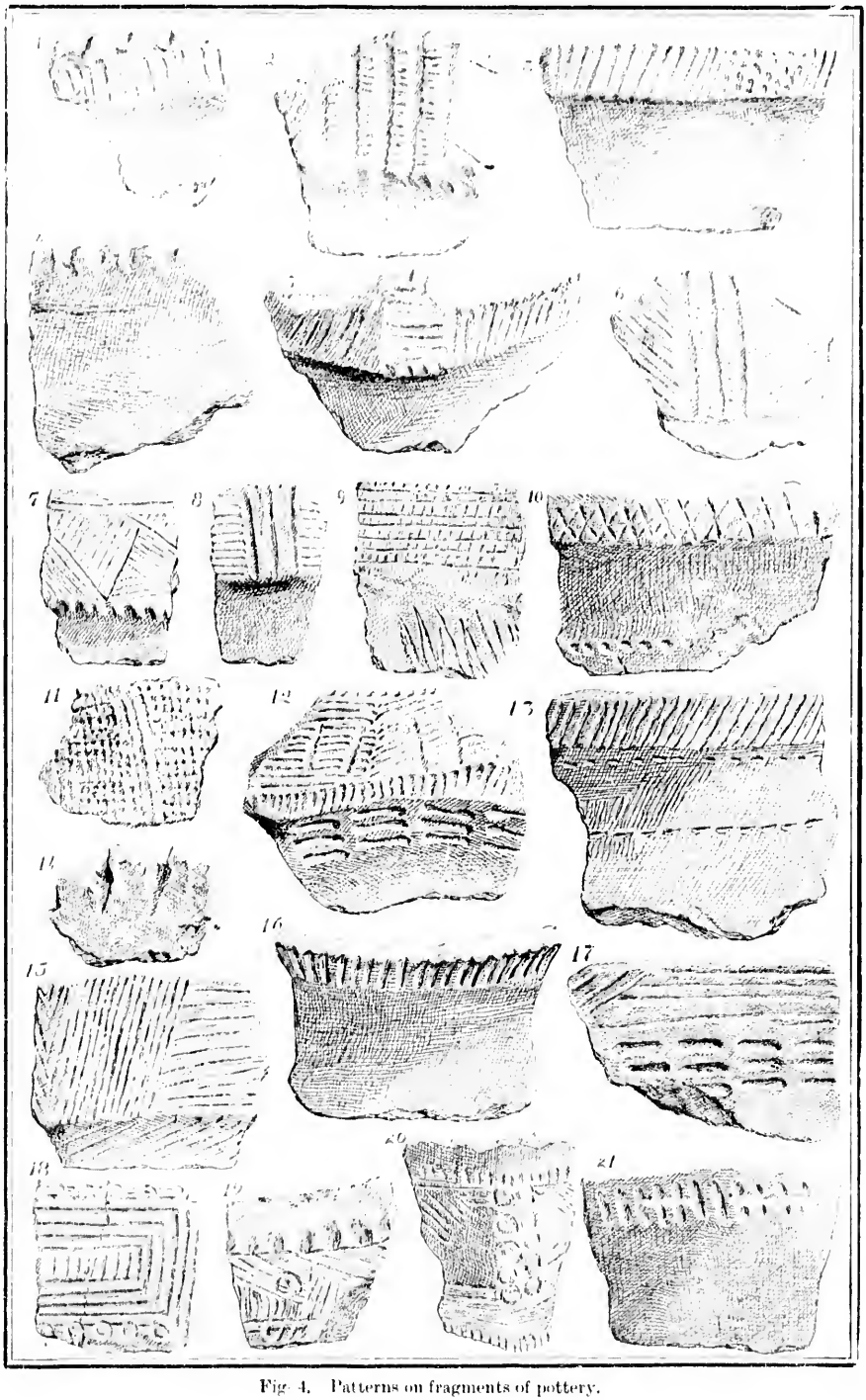


Fig. 4. Patterns on fragments of pottery.

next considerations presenting itself to the savage mind would be, how to convey water in sufficient quantity to a distance from the source of supply. Here, again man's environment influenced the direction of his course. In some places the skins of the lower animals were used for this purpose, but this, perhaps, presupposes the art of stitching. Where soft stone like steatite was procurable vessels of considerable size were made from it. Elsewhere, vegetable fibres of various kinds were so closely woven as to form capacious buckets, which, when coated with gum or grease, were quite impervious to water. Among those who followed this course may be mentioned the tribes of British Columbia.* In the majority of cases, however, not in America only, but all over the world the favorite method of making vessels was from clay.

The effect of camp-fires on the earth was no doubt observed early in the history of our race, and the difference was as certainly noticed between the result of intense heat on clay, as distinguished from that produced on looser material like sand or mould.

Fig. 5. Full size.

Fig. 6. Half diameter.

Fig. 7. Half diameter.

Some one may have amused himself in throwing clay pellets into the fire or he may have fashioned something more pretentious for the purpose of being burnt with or without any reference to results, which, when brought to his notice, suggested the realization of a decided want. For our purpose it is immaterial whether we regard this art as having become common property by radiating from one centre of discovery at a very early date, or as having been hit upon at different times by various peoples widely scattered. In any event, pottery-making soon became a favorite employment, even among many of the lowest races, and we may be tempted to form an estimate of the social condition of savage man, by a comparison of his fictile workmanship with that of others earlier or more recent.

* In the Provincial Museum there is a vessel of this kind from British Columbia, said to be formed from the roots of the spruce. It will hold nearly as much as a common wooden pail, and is exceedingly strong.

From the restricted use of clay vessels as water-holders, it is easy to imagine how soon they would be found convenient as receptacles for maize, nuts, other seeds, roots, fish, meal, arrow-heads, beads and small articles of all sorts. From raw to broiled or roasted, and from roasted to boiled are but steps in the preparation of food, and the clay pot or kettle must soon have begun to assume an important place in wigwam-life, and it was perhaps on this account that the making of earthenware came to be regarded as peculiarly the work of woman.

On this continent, the potter's art reached its highest development in Mexico, Central America, and Peru, and yet no advance was made by the people of these countries beyond the use of common clay. In gracefulness of outline many of their vessels will compare favorably with those of "classic" patterns from the best workshops of Europe, ancient or modern, and are in the same respect superior to the prevailing types of Chinese and Japanese ware. They were destitute of glazing as we understand the term, but were frequently brought to a high polish. Not seldom the designs in black, red, and brown were tasteful and elaborate—

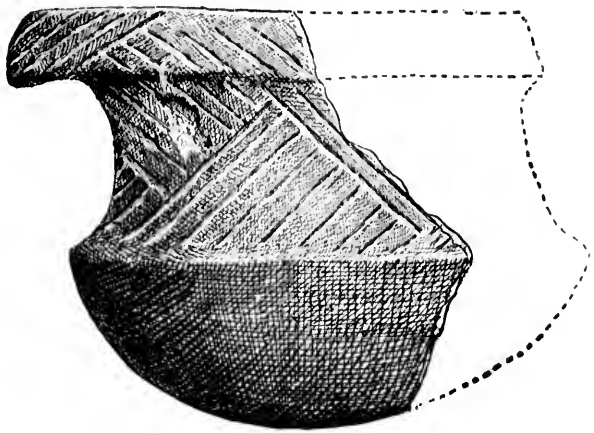


Fig. 8. Half size.

these were painted carefully, and apparently "fixed" during the process of firing or burning. More rarely the ornamentation was produced in strong relief, and sometimes even on the same vessel a portion of the pattern consisted of depressed lines.*

In the territory now known as Tennessee, Missouri, Arkansas, Arizona, Colorado, New Mexico, and a few other states, considerable advancement was made in the production of pottery, much of which is of the gourd type, but fish, frogs, birds and other animals were not uncommon models. Some vessels were painted, but as the distance increased northwards and eastwards this method of decoration wholly disappeared, and decorative efforts were confined mainly to raised patterns, human and other heads being quite common. The Indians of New Mexico and Arizona continue to make earthenware of the old-fashioned kind, and it is probable that nowhere else in America is the ancient art maintained.

* A very beautiful example of this type, dug up in Mexico, may be seen in the Provincial Arch. Mus. Specimens of the other kinds mentioned above are also in the cases.

In Arkansas and Missouri, and some neighboring territory clay vessels were in many cases destitute of ornamentation. The red and black designs found on some are rude both in conception and execution, although the forms of the vessels are often elegant.

North of the Ohio and east of the Mississippi the shapes of such vessels become less varied, and much more simple, but there is evidence of a desire to improve their appearance by the addition of depressed markings variously disposed on the upper portion of the outside.* In Ontario it is difficult to procure even a fragment that has not belonged to a piece of pottery-ware so ornamented. In the manufacture of such vessels no wheel was employed, but many of the shapes must have required the use of some spatula-like tool to model certain portions of not a few of the finest articles, where reversed curves and sharp-angles relieve the neck and margin. Sometimes unio (mussel) shells have been used in this way. See figures 149 and 150.

South and west of the Ohio many, if not all, earthenware vessels were built up from rolls of clay deftly wound. Dumont, in his Historical Memoirs of Louisiana, published in 1753, states "that, having amassed the proper kind of clay, and carefully cleaned it, the Indian women take shells, which they pound and reduce to a fine powder; they mix this powder with the clay, and, having

Fig. 9. Full size.

poured some water on the mass, they knead it with their hands and feet, and make it into a paste, of which they form rolls, six or seven feet long, and of a thickness suitable for their purpose. If they intend to fashion a plate or a vase they take hold of one of the rolls by the end, and fixing here with the thumb of the left hand the centre of the vessel they are about to make, they turn the roll with astonishing quickness around this centre, describing a spiral line: now and then they dip their fingers into water and smoothe with the right hand the inner and outer surface of the vase they intend to fashion, which would become

* The narrow-necked vessels of Central America were ornamented on the outside, but bowl-shaped specimens with very wide mouths had the design on the inside.

rutlled or undulated without that manipulation. In this manner they make all sorts of earthen vessels, plates, dishes, bowls, pots, and jars, some of which hold forty to fifty pints."*

In our latitude there is nothing to show that this method was ever employed. No fragments exhibit any such line of cleavage as one might reasonably look for in a specimen or two among many thousands, if roll-building had been followed. On the contrary everything goes to show that the pottery made by our aborigines was formed by moulding from a mass.† The material was no doubt prepared in a manner similar to that described by Dumont so far as tempering and kneading were concerned, with this difference that our Indians used burnt gneiss and granite even more frequently than shells for the former purpose. Grains of quartz and flakes of mica may be readily distinguished in most of the pottery found in this Province.

Fig. 10. One half diameter.

Fig. 11. Nine inches high.

The comparative scarcity of whole specimens of Indian earthenware in Ontario has been observed. At first one might conclude that only a small quantity had been made, but the vast number of sherds found in numerous localities does not favor this view. We should rather look to climatic conditions for a reason—for the chief reason. The unglazed and coursely porous material of which these vessels were composed, permitted them to

* Dumont's Memoirs Vol. II. p. 274. Quoted in the excellent work on the Antiquities of Tennessee, by Gates P. Thruston, and published by Robert Clarke & Co., Cincinnati, 1890.

† A large fragment before me, when examined with a moderately strong hand-glass, would favor the belief that the vessel, originally about ten inches in circumference, was formed from a *slab* of clay, rolled or pressed to the proper thickness. The piece has been well burned, showing a skin of pale brown fully a line in thickness on the outside, and one somewhat less on the inside, while the middle portion, from three-sixteenths to one-fourth of an inch in thickness, is dark grey, but not of uniform shade. Along the three broken edges, irregular laminations are distinctly seen, as if several layers of clay had been added from time to time, or as if the clay had been doubled on itself, during the flattening process to bring the slab to the required thickness. This is an effect not at all likely to have been brought about, had the vessel been formed from a *lump* of clay. Prof. W. H. Holmes, of the Field Museum, Chicago, in a recent paper expresses his conviction that our northern pottery was moulded in hollows of suitable size formed in sandy soil. His reasons are very plausible. This method of working would account for the rounded bottoms of clay pots. In this way, also, the laminations referred to may be accounted for by supposing that one coat after another had been added during the moulding process.

absorb water almost equal to their own weight. When thus sodden for a long time they easily fell to pieces. The conditions necessary for disintegration may be found in the graves where most of the specimens preserved to us have been placed. When the ossuaries or communal graves were finished they no doubt formed low mounds two or three feet above the general level of the ground, but when the bones decayed, numbering as they did those of

Fig. 12. One-third diameter.

from fifty to several hundreds of individuals, the ground surfaces in course of time became hollow, forming receptacles for rain and snow. The soil covering the bones seldom exceeded three feet in depth, and the contents of the pit were

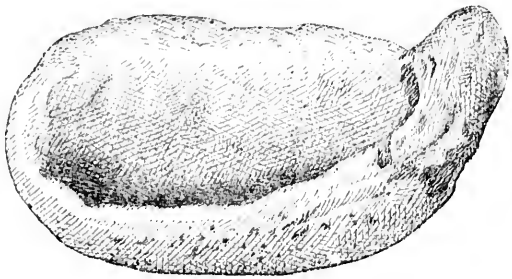


Fig. 13. Full size.

favorable to the admission of water in large quantities. Add to this the action of frost, which, for a similar reason, also penetrated to more than an average depth, and we can readily understand why so few specimens of earthenware have escaped destruction when thus inhumed. In a modified degree, the same remarks apply to single graves, with the additional disadvantage that they were

usually much shallower than the ossuaries. The larger number of perfect pieces in our small collection of Ontario pottery have been taken either from situations in light, sandy soil, or from ledges protected by overhanging rock.

It is generally understood that the Indian women were the potters in every part of America where earthenware was in use, and even in these more northerly latitudes where circumstances forbade the highest possible attainment in ceramic art, no one who examines carefully the work of the primitive "better halves" can help expressions of surprise and admiration in connection with the skill and taste it exemplifies. The parallelism that is often found to exist

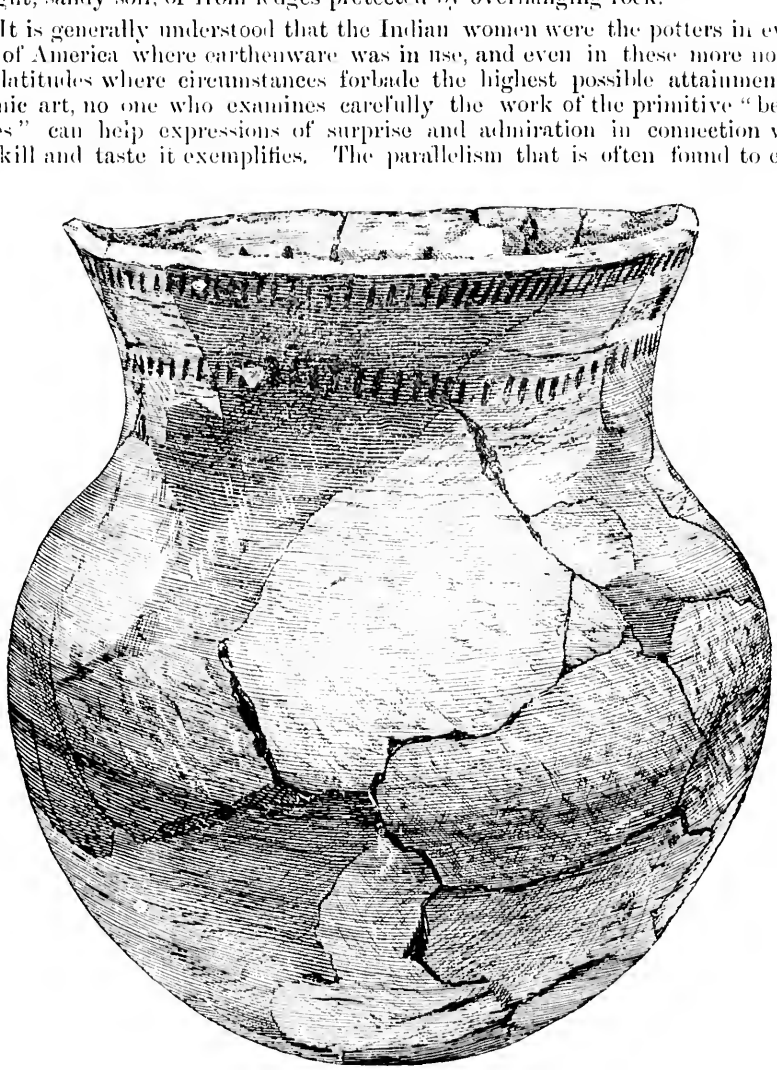


Fig. 14. (Restored) ten inches high.

between the art instinct and savagery would seem to indicate an inherent tendency to advancement along other lines, but the knowledge in our possession makes it too plain that in relation to low conditions of society an appreciation of "the true and the beautiful" seldom leads to the higher "good." On this subject, Sir John Lubbock says, "Their appreciation of art is to be regarded rather as an ethnological characteristic than as an indication of any particular stage of civilization."

Without exception the clay pots found in Ontario are round bottomed, and without feet, and we may rest assured that being so formed they were best adapted to their intended purpose. Feet involved considerable trouble and risk in the manufacture, and would have rendered the pots more liable to injury in carrying them long distances; a broken foot would usually mean a hole in the bottom, and the loss of one or two feet (if this could have happened without otherwise injuring the utensil) would cause it to stand unevenly,* while a flat bottom would have increased the danger of breakage in the act of burning, besides offering additional points of outside contact when in use. With a plain round bottom it was only necessary to make a slight depression in the soil beside the fire, or among the ashes of the fire itself, to obtain perfect steadiness for use in cooking. It is, of course, understood that boiling was not effected in such utensils directly from the fire, but by means of heated stones dropped into or, rather, carefully placed in them, although it is not impossible that the former method was occasionally employed. Kalm, during the middle of last century, writing of the Indians in New Jersey, says, that "Many of the clay kettles have two holes in the upper margin, on each side (he probably means one on each side) through which the Indians put a stick and held the kettle over the fire as long as it was to boil." This was only hearsay to Mr. Peter Kalm, and he affords us no information as to how the difficult feat was accomplished.† Even so long ago, clay vessels had become objects of antiquity, but the sagacious "old settler" knew all about them.

The aboriginal potter's art was one of the first to fall into disuse after the arrival of Europeans. It must always have been extremely hazardous and inconvenient to convey such fragile articles as clay vessels from place to place, over great distances, and the Indian was not slow to perceive the immense advantage possessed by a copper pot or kettle over one that so often failed him at the moment of his greatest need. In addition to this he had an eye to the possibilities of the metal after the kettle, as a vessel, became unfit for use. Here was material for buttons, bangles, medals or gorgets, ornaments for the hair, etc., and we find accordingly, that in a very short time the Pale-faces' copper kettle wholly supplanted the ancient clay pot of the Redskin. To the Indian woman the adoption of the new fashion must have lightened her labors more than a little, both as a potter and as a common carrier.

* Among some southern tribes feet were occasionally formed on clay and stone vessels, but they seldom exceeded three in number. The old cast iron pots in use before the day of stoves, in this country, had only three feet, thus they always stood "as right as a *trivet*."

† See appendix B.

CLAY PIPES.*

The making of clay pipes properly falls under the head of pottery, although it differed in many important respects from the making of vessels varying

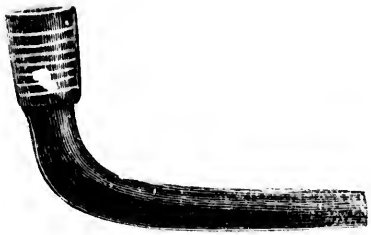


Fig. 15. One-third diameter.

Fig. 16. Full size.

Fig. 18. Full size.

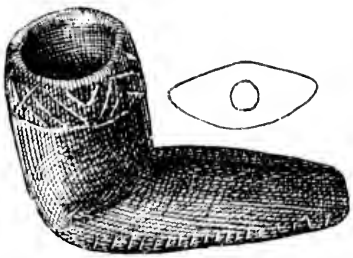


Fig. 19. Two-thirds diameter. Showing section of stem.

Fig. 20. Two-thirds diameter.

Fig 21. Two thirds diameter.

in size from that of a tea-cup to the capacity of others holding half a bushel or more. Pipes were made by the men, and it must be observed that the

* See Appendix G.

"braves" have shown much wider range and greater originality of design in their workmanship, than the women did in theirs. There were, it is true, a few prevailing or fashionable patterns, but besides these, the number of forms

Fig. 22. Two-thirds diameter.

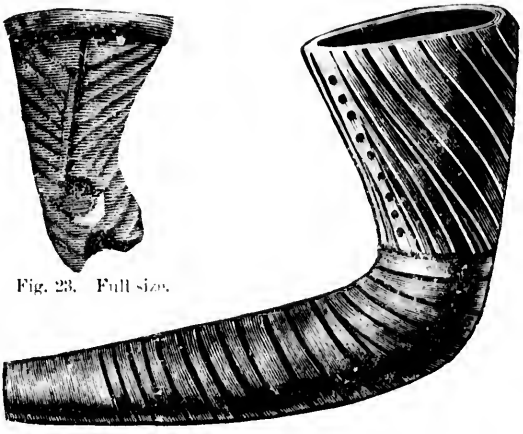


Fig. 23. Full size.

Fig. 24. Two-thirds diameter.

Fig. 26. Seven eights dia. (Fragment.)

Fig. 25. Full size.

was legion. Occasionally a pipe is found, the material of which suggests that it was filched from some woman's "dough" prepared for pots, but a large number

bear no evidence of tempering. The bowl-holes in many of them are so small that for smoking purposes they appear useless—perhaps they were only ceremonial make-believes, or were made to supply a place in grave-furniture. Most

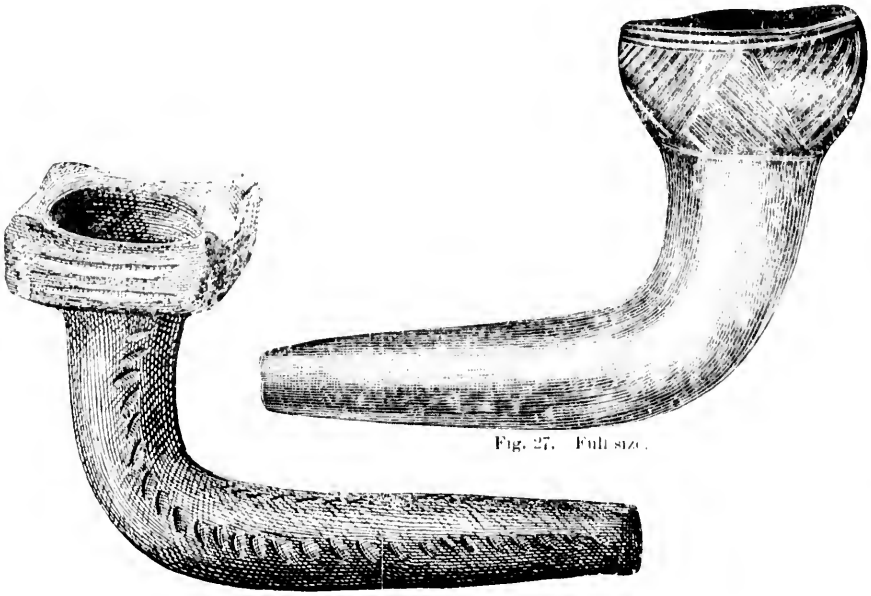


Fig. 27. Full size.

Fig. 28. Three fourths diameter.

Fig. 29.
Full size.

Fig. 30.
Full size.

Fig. 31.
Full size.

Fig. 32.
Full size.

of such pipes are, however, widely flared at the mouth, forming a shallow cup, and it is not impossible that the smoking material was here *placed*, in which case most of the so-called bowls would only be part of sharply curved stems.

To a less extent this applies to what is known *par excellence* as the Huron pipe on account of its prevalence in the district occupied by the people of that name (figure 28). It, too, is flared, but the sides of the flare are moulded to

Fig. 33. Nearly full size.

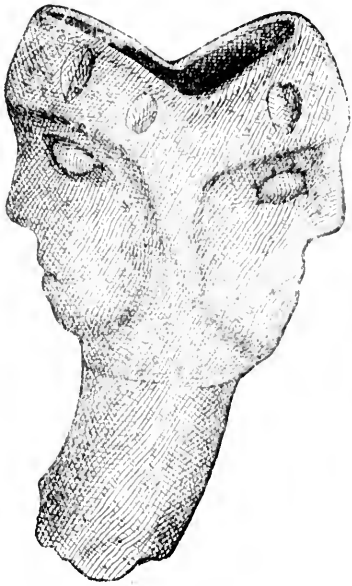


Fig. 34. Full size.

Fig. 35. Full size.

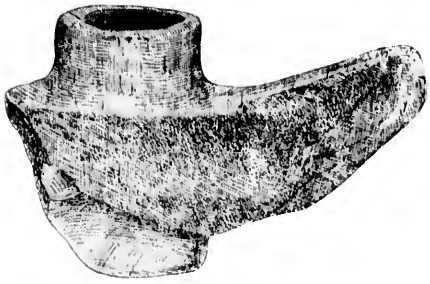


Fig. 37. Three-fourths diameter.

Fig. 38. Lower side of 37, showing face.

form a square, and the edges are given an upward turn, thus increasing the depth of the mouth. Immediately below this the size of the hole decreases rapidly until, as in the former case it is only a continuation of the stem-hole.

Whatever the shape may have been it is probable that all clay pipes were moulded on the same plan, so far as the formation of the stem was concerned. The method was to model the clay round a flexible twig, or a thong, one end of

Fig. 36. Full size.

Fig. 39. Full size.

Fig. 40. Full size.

Fig. 41. Full size.

Fig. 42. Full size.

which entered the base of the bowl, and which being allowed to remain there disappeared during the burning process. This is beautifully exemplified by means of a stem which has fortunately been broken lengthwise, showing that the hole

has been formed with some twisted fibre consisting of two strands. Stems varied in length from an inch and a half to five or six inches. Valuable heads, having lost their stems, were often bored for the admission of wooden ones. As to finish, pipes may be classified as *plain*, or absolutely free from ornamental markings (figure 18); *incised*, or having on the surface patterns composed of depressed lines and dots (figures 15 to 28 except 18); and *raised*, or bearing in relief a representation (usually) of some animal form (figures 29 to 55). With reference to the last named it may be noted that the human form was the most favored subject, and very often only the head or face. The kind shown by figure 43 is of somewhat common occurrence. The form is rude and

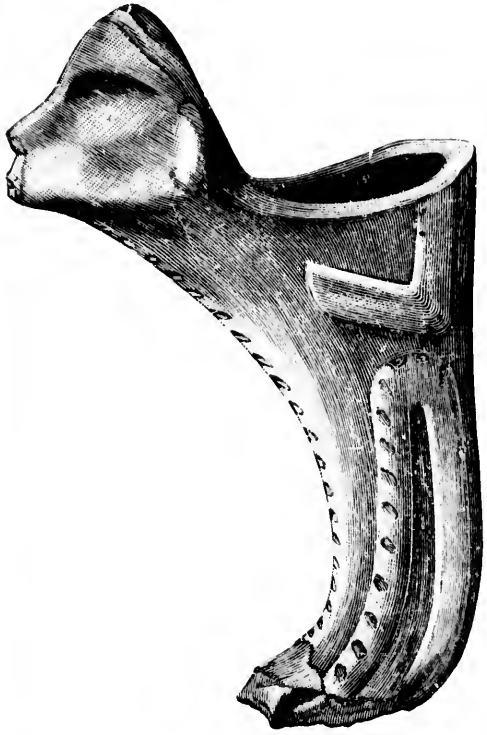


Fig. 43. Full size.

Fig. 44. Full size.

highly conventionalized. The face seems to have been brought into shape chiefly by pinching between the finger and thumb. In all pipes of this class the head tapers rapidly upwards, and in many of them there is represented a coiled headdress. Invariably, too, the face looks in the direction of the stem, or towards the smoker. Perfect specimens are extremely rare. Even to the Indian they may have been caricatures—symbolized jokes. That the aborigines had a spice of fun in them we know, notwithstanding the reputation their bear for stolidity and taciturnity. Practical jokes, and jokes reflecting on personal appearances, were their especial delight, and they sometimes exemplified this characteristic

in the heads and faces they modelled on their clay pipes. To one they attached a pair of dog's ears (figure 30), to another those of a bat; in one the mouth and eyes are formed awry and at opposite angles (figure 40); a fourth shows the face looking upwards (forming the top of the bowl), one eye being deeply hollowed

Fig. 45. Full size.

Fig. 46. Full size.

Fig. 47. Full size.

Fig. 48. Full size.

to receive the tobacco (figure 42), while in still another somewhat similarly formed, it is the widely open mouth that forms the interior of the bowl (figure 41). If they ever attempted portraiture in the numerous representations of

Fig. 49. Full size.

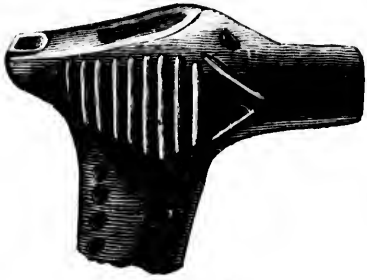


Fig. 50. Full size.

human features, their intentions have wofully miscarried, for in few cases can it be said that the faces are even typical of the race. Figure 1 is an exception, and is probably so, "more from luck than good guiding."

The serpent-worship school of archæologists will find but little encouragement for their views among the numerous representations of lower animals adapted by the Indians to pipe-making in this province. The eagle (figure 53), owl, wolf or dog (figures 49, 50 and 52), and bear (see stone pipes) seem to

Fig. 51. Full size.

Fig. 52. Full size.

Fig. 53. Full size.

have been more frequently used than the snake for this purpose, and if it be urged that they also were so employed because they were objects of veneration, what must be said regarding the still more numerous occurrences of

the human face and full form? It would be rash to deny utterly that fetichism or, rather, totemism, played any part in this department of aboriginal handicraft, but, so far, there is no evidence that it did.* The great variety of human representations would seem to indicate primarily the mere play of fancy in pipe mod-

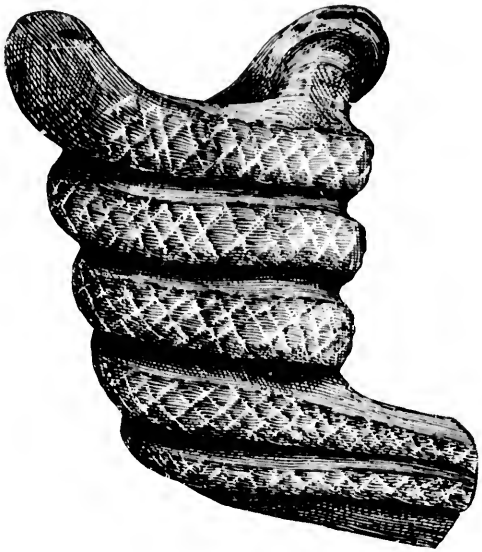


Fig. 54. Full size.

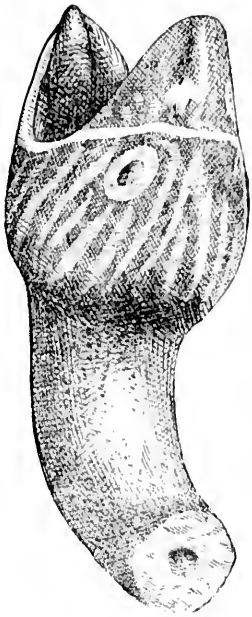


Fig. 55. Full size.

elling. In some instances there may have been a secondary reference to totems, but certainly nothing to mark the serpent as a specially favored or affected object.

* Fetichism, strictly speaking, has no temples, idols, priests, sacrifices or prayer. It involves no belief in creation or in a future life, and *a fortiori* none in a state of rewards and punishments. It is entirely independent of morality. . . . . .

"The next stage in religious progress is that which may be called Totemism. The savage does not abandon his belief in fetichism, from which indeed no race of men has yet entirely freed itself, but he superinduces on it a belief in beings of a higher and less material nature. In this stage everything may be worshipped—trees, stones, rivers, mountains, the heavenly bodies, plants and animals." Sir John Lubbock in Origin of Civilization, American edition, pp. 169-170.

FLAKED TOOLS.

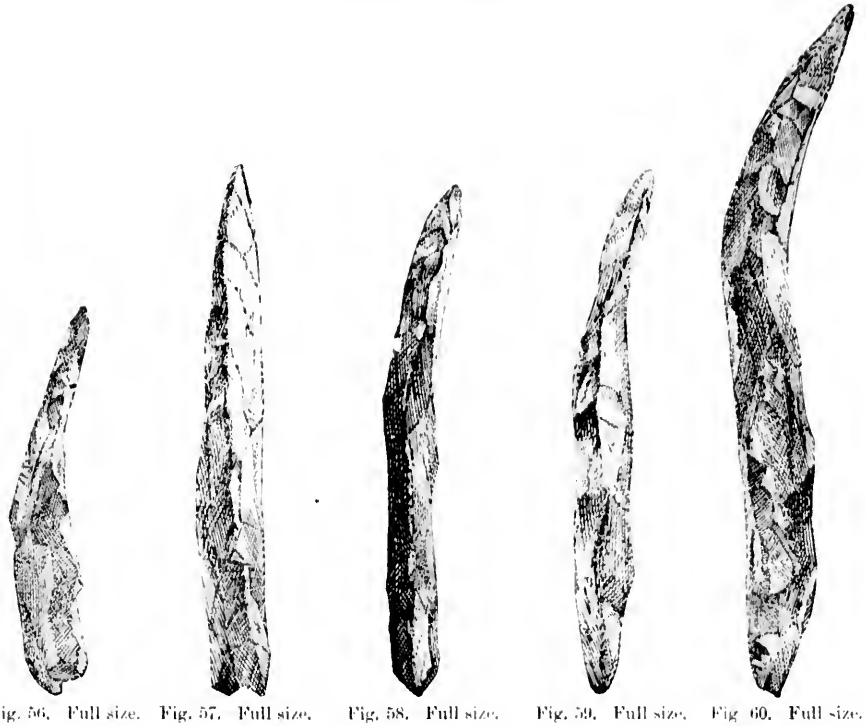


Fig. 56. Full size. Fig. 57. Full size. Fig. 58. Full size. Fig. 59. Full size. Fig. 60. Full size.

It would not seem very difficult to follow in imagination the development of the flaking or chipping art. Even if early man's intelligence did not suggest this method of producing a cutting or scraping edge on a piece of stone, accident would soon supply the necessary hint. On both continents considerable quantities of material are found . . . very rudely flaked in many instances as to appear at first sight but little superior to "road metal." This, in the slow process of development, is just what might be expected. In the Old World, specimens of this kind are usually laid bare under such conditions as clearly prove an extremely low, mental and social condition of the workmen. In America, however, similar objects are generally found more or less intimately associated with others exhibiting a far higher degree of intelligence and skill, thus rendering it difficult, if not impossible, to classify ruder forms as *paleoliths* (old stone weapons) and the more highly finished as *neoliths* (new stone weapons). Dr. Abbott and others have found in the New Jersey gravels and elsewhere paleolithic-looking specimens, at considerable depths, and apparently having not the remotest connection with higher, or surface finds. This would go to prove the existence of

man in America before, or during the glacial period ten, twenty, a hundred or more thousands of years ago. Prof. W. H. Holmes has recently made an exhaustive study of the Trenton gravel-beds, whence Dr. Abbott procured his specimens, and has expressed his utter disbelief in the palæolithic character of the finds there made, showing the possibility of their reaching great depths from the surface, and urging that they are simply "rejects" or partly worked specimens, the nature of whose material rendered them unsuitable for further manipulation.

In Ontario, we find a good many roughly chipped objects, and always of the leaf, or oval form. The nature of the fracture in some instances is clearly in favor of regarding the specimens as "rejects," but in many cases it appears more reasonable to look upon them as material partly prepared at the quarry, for ease in transportation to some other place where the finishing touches might be given at leisure. A notable instance of this kind was the finding of a "nest" of such pieces near Komoka, in the county of Middlesex. Of the sixty-nine objects here

Fig. 61. Full size.

Fig. 62. Half diameter.

found together, all, but one, were roughly leaf-shaped, the exception being a fairly good spear-head provided with a neck, and looking as if it might have been the only weapon finished, when secrecy or safety necessitated the covering up of the whole lot. All these are now in the Provincial Archæological Museum.

Curiosity is frequently expressed as to the Indian art of flaking. In the ruder forms of implement or weapon, there is no doubt it was done by percussion, but the finer qualities of work required a different method, and this, we have the best of reason to believe, was by means of pressure. The roughly fashioned flint was placed against a pad or shield in the palm of the left hand. Against the edge to be flaked, the workman brought to bear a bone tool, held in his right hand. This tool, provided with a notch at the working end, was pressed firmly and steadily against the portion to be removed, and the separation

is said to have been accomplished by means of a dexterous twist. It is easy enough to write or read a description of this kind, but as in the case of other apparently simple operations, it is much more difficult to practice than to teach. We know that the method varied in detail to some extent among tribes widely separated, but in a general way the above may be regarded as the plan of operation.

Mr. Cushing, of the American Bureau of Ethnology, has devoted much time and patience to the study of flaking, and has succeeded in producing specimens of various kinds equal to those of Indian manufacture. The making of gun-flints,

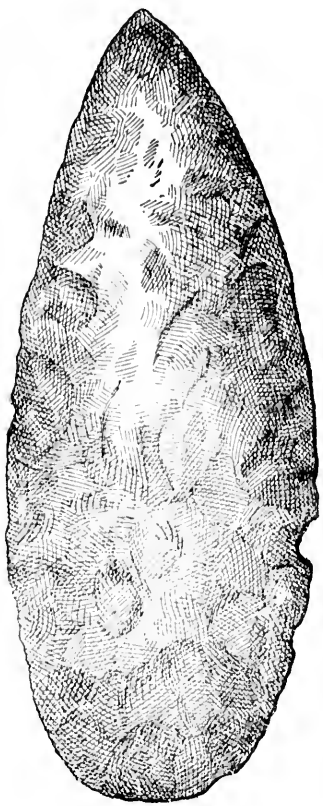


Fig. 63. Half diameter.

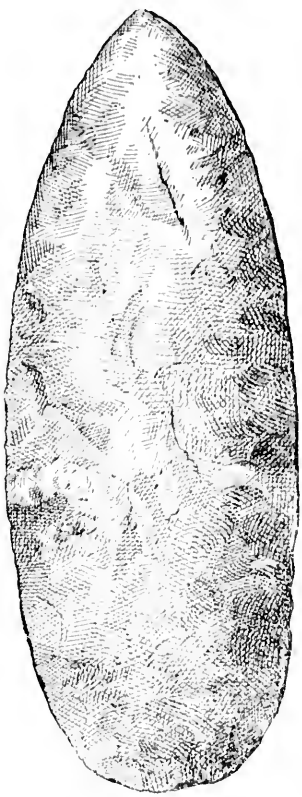


Fig. 64. Half diameter

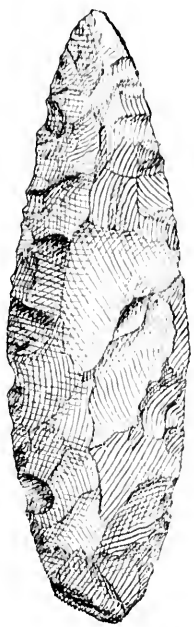


Fig. 65. Half diameter.

still carried on at Brandon, in England, must require fully as much dexterity, for the reason that, admitting the superior intelligence of the workman, and the higher quality of his tools, his flints must conform very closely in size and shape to a given pattern.

The material used by the Indians of Ontario was chiefly chert, a sub-species of quartz, found in masses of various sizes weighing from a few ounces to several pounds, embedded in limestone. On Point Abino, Lake Erie, there is an outcrop

of limestone supplying an abundance of chert, from which have been procured large quantities of blocks for tools and weapons.

There can be little doubt that the value of this property was fully appreciated by the Neutrals, or Attiwandarons, and that these people profited as traders in furnishing other nations both with unwrought and partly wrought material as well as with finished articles. Flaked quartzite weapons are seldom met with in Ontario, but figures 61 to 65 represent some of this kind, half size.

In the Ottawa valley and other portions of the province usually regarded as Algonkin territory, the form and finish of flaked specimens are inferior to the workmanship on such objects found farther west and south. It is mostly in the counties lying south of a line drawn from Goderich to Hamilton that the finest specimens are found, and where attempts have been made to produce unusual or fanciful forms.

Fig. 66. Half diameter.

Fig. 67. Half diameter.

Fig. 68. One-third dia.

Few flaked tools of large size have been found in Ontario. Perhaps one from the township of Pickering, now in our museum is the largest, as it is about eleven inches long. In Ohio and some other states they are more numerous, and are supposed to have been used as spades or hoes.

It is customary to refer to all ordinary specimens of this kind as arrow or, spear heads, between which, except as to size, there is no line of distinction. In all probability most of them were employed as these names would indicate, but it is equally certain that many were used otherwise. The short, rounded ones may have served as scrapers (figure 80), or may have been inserted as spikes in the heads of clubs, while it seems reasonable to believe that many of the larger, and, proportionately, more slender forms, provided with necks, or stems, answered the purpose of knives figures 56 to 61. A third variety, including

those whose edges are deeply notched, were probably used as saws (figure 79). The employment of such tools was required in many primitive occu-

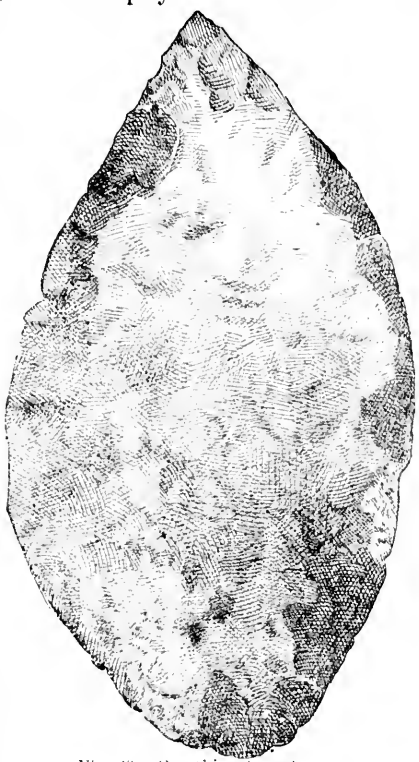


Fig. 69. One third diameter.

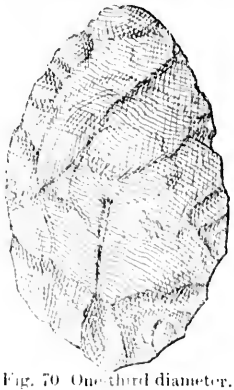


Fig. 70. One third diameter.

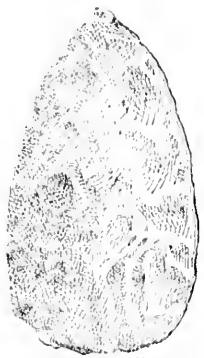


Fig. 71. Half diameter.

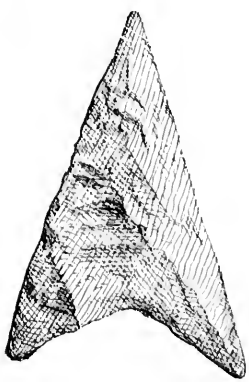


Fig. 72. Full size.

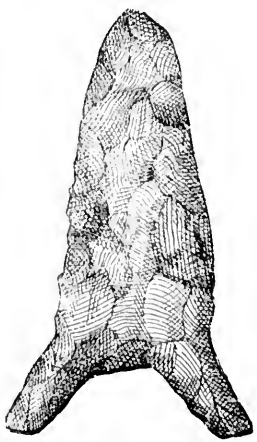


Fig. 73. Full size.

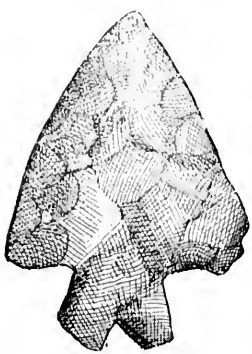


Fig. 74. Full size.

pations, as, for example, the division of bone lengthwise to make awls, or needles; the cutting of bird bones in cross section for beads; the separation of

portions of stone for various purposes; and in the making and repairing of bows, arrow-shafts, drums, canoes, paddles and other articles requiring the use of wood.

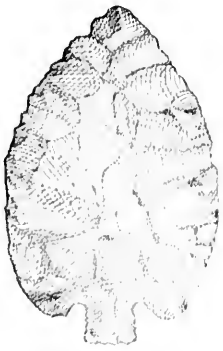


Fig. 75. Full size.

Fig. 76. Half diameter.

Fig. 77. Full size.

Fig. 78. Full size.

Fig. 79. Half diameter.

Fig. 80. Full size.

Fig. 81. Full size.

Fig. 82. Full size.

At a pinch, however, the savage workman was at no great loss for the want of specialized tool-forms—with the arrow-head that killed his game he could take

off the skin, sever the tendons, and cut up the flesh. With the point of flint that made his enemy bite the dust, he could make himself the happy owner of the fallen one's scalp, and perform otherwise all the mutilation demanded to show his contempt for a hated foe. His stone axe, or celt, served him to cut down a tree, to hollow a boat, to dig up roots, to pound corn and nuts, to drive stakes, and to give the finishing stroke to a wounded animal. Flints (so-called) of fanciful shapes—double-notched, double-barbed, concave-sided, oddly-necked (figures 72

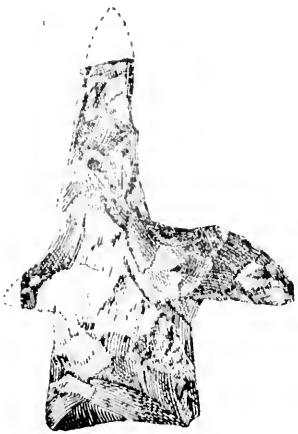


Fig. 83. Full size.

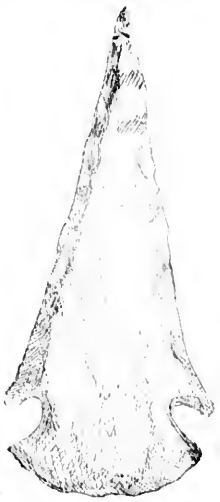


Fig. 84. Full size.

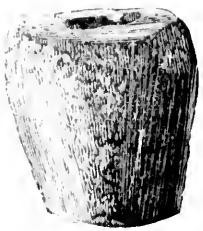


Fig. 85. Half diam.

to 78)—were in all probability for ornamental or ceremonial use, or, they may even have been regarded as amulets. At any rate it does not appear reasonable to suppose that so much labor and ingenuity should have been expended on objects of this kind merely for shooting purposes.

Drills (figures 81 to 84), too, are made from the same material as arrow-heads, and are similarly worked. They are usually provided with a T-shaped head, thus affording leverage when in use, whether held simply in the hand, or bound to a shaft or a handle. Those here figured are of exceptional forms, indeed some of them may not have been drills at all.

Celts were sometimes made by flaking chert, and afterwards producing a smooth, cutting edge by rubbing, but specimens of this kind are extremely rare in our province.

Flaked specimens, mostly arrow-heads, far outnumber all the other relics found in Ontario, and the same may be said regarding nearly every other country in the world.

STONE PIPES.

The Indian artist-mechanic illustrated the highest reaches of his imagination and exemplified the best style of his workmanship in his stone pipes, many of

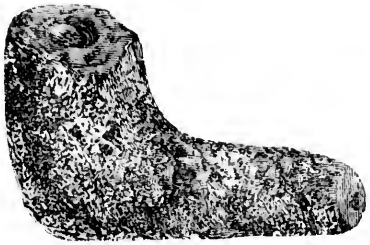


Fig. 86. Half diameter.

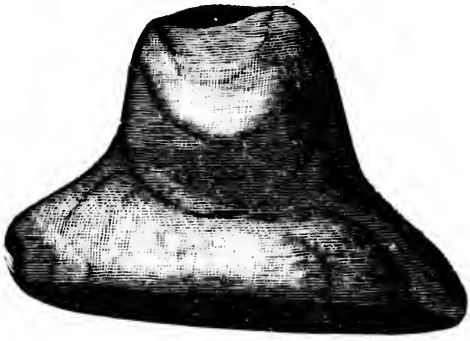


Fig. 87. Full size.

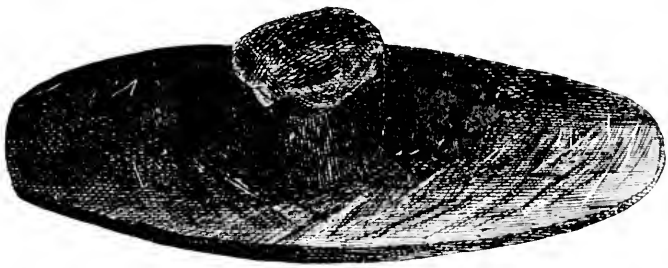


Fig. 88. Half diameter (unfinished).

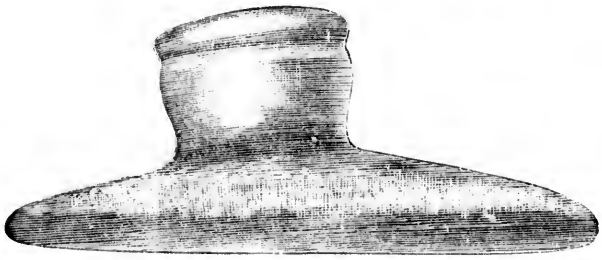


Fig. 89. Seven-eighth size (platform pattern).

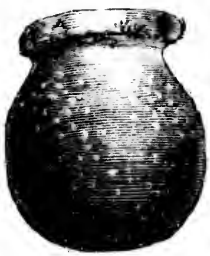


Fig. 90. Full size.

which were "so skilfully executed that a modern artist, notwithstanding his far superior metallic tools, would find no little difficulty in reproducing them."*

In choice of material he had a wide range, but usually selected that which was most easily wrought, as soapstone, limestone, sandstone, serpentine, and cat-

*Smithsonian Contributions to Knowledge, by Charles Rau, p. 45. Washington, 1876.

Fig. 91. Full size.

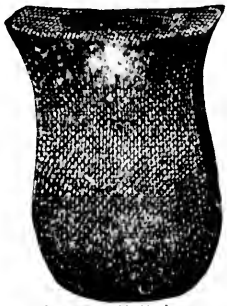


Fig. 92. Full size.

Fig. 93. Full size.

Fig. 94. Full size.

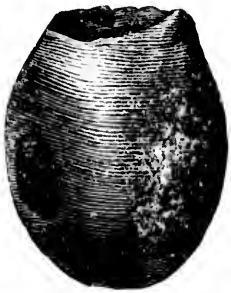


Fig. 95. Full size.

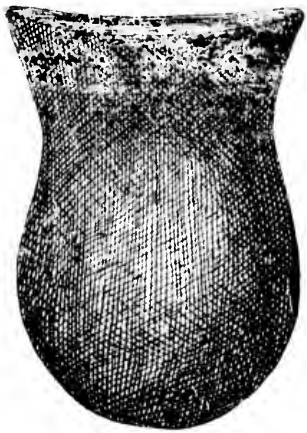


Fig. 96. Full size.

Fig. 97. Full size.

Fig. 98. Full size.

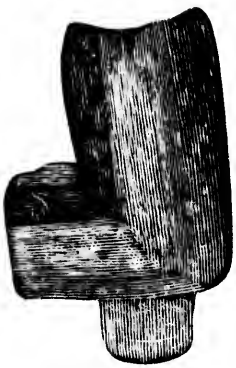


Fig. 99. Full size.

...inite or bloodstone. His most favored models were the human head and whole figure (figures 113 to 120); after this came representations of quadrupeds, birds,

Fig. 100.

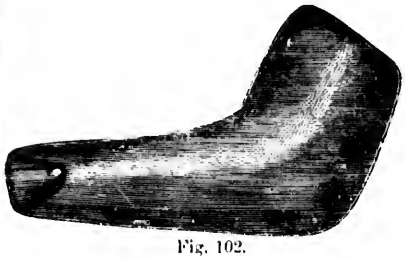


Fig. 102.

Fig. 101. Half diameter

Fig. 103.

Fig. 104.

Fig. 105.

Fig. 106.

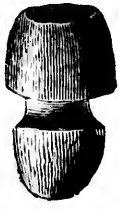


Fig. 107.

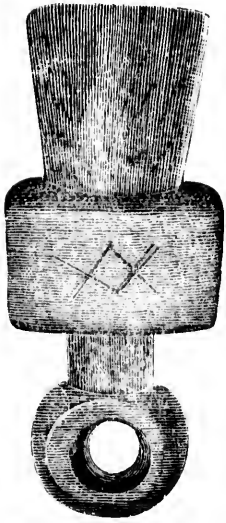


Fig. 108. Full size.

Fig. 110.
Half diameter.
(Side view.)

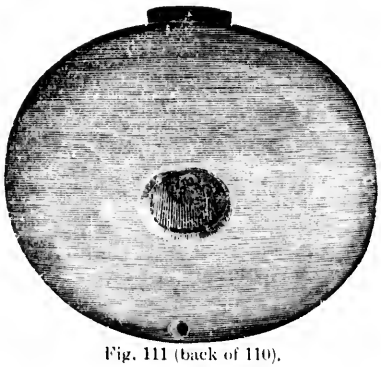


Fig. 111 (back of 110).

snakes (figures 121 to 132), but never fish. In many instances there is no attempt whatever to produce anything beyond a plain article—a simple bowl and stem, or a bowl without any stem.

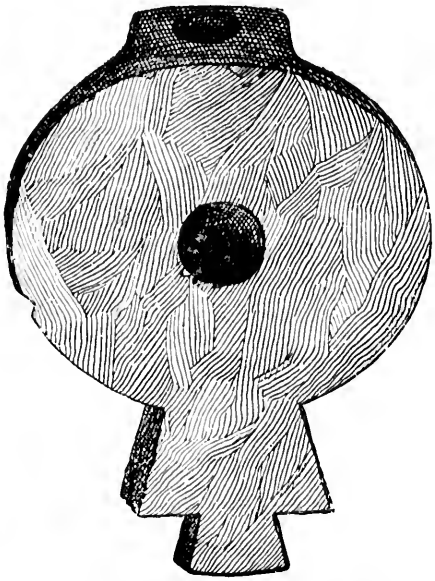


Fig. 112. Seven-eighth size. Catlinite pipe.

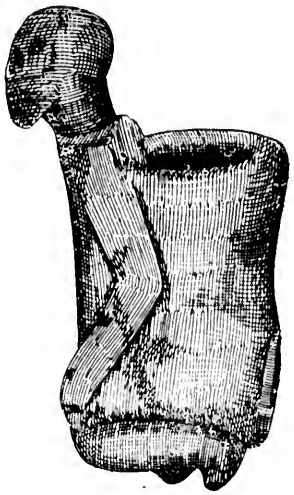


Fig. 113. Full size.

The Provincial collection contains numerous specimens of unfinished pipes, both of the stemmed and stemless varieties, and from these we learn not a little regarding the primitive methods of working stone (figures 85, 86). One

Fig 114. Full size.

Fig. 115. Full size.

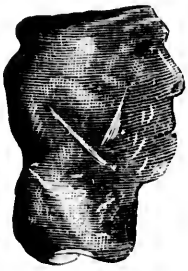


Fig. 116. Full size.

Fig. 117. Full size.

of the first things that strikes us is that the material was invariably brought to its intended size before the holes were drilled for the bowl and stem, or for the bowls alone. The art of pipe-making was one that

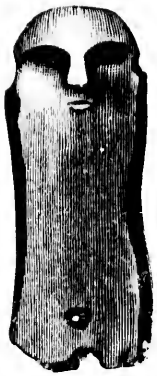


Fig. 118. Full size.

Fig. 119. Full size.

Fig. 120. Full size.

Fig. 109. Full size.

Fig. 121. "White stone" pipe (full size).

lingered long among the Indians after many other arts were forgotten. The reason for this survival would appear to be in the main accounted for from the fact that Europeans coming to America showed a preference for pipes

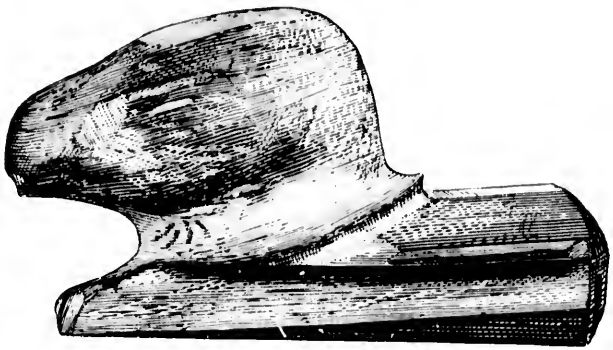


Fig. 123. Nearly full size with cross section of stem.

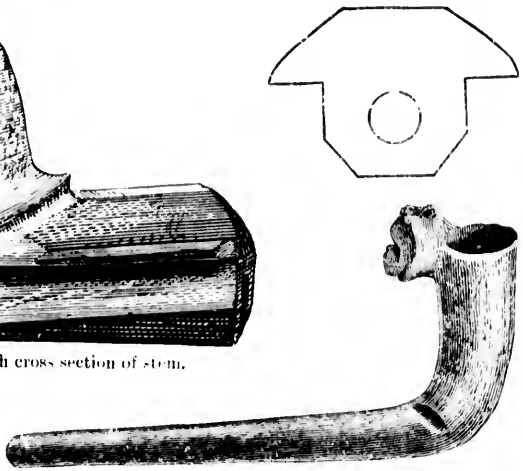


Fig. 122. "White-stone" pipe. One-third diameter.

of native manufacture. Kalm tells us that "all the tobacco-pipe heads which the common people in Canada make use of, are made of this stone (limestone), and are ornamented in different ways. A great part of the gentry likewise make use

Fig. 124. Full size.

Fig 125. Half diam.

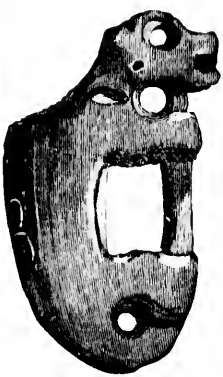


Fig. 126. Half diam.

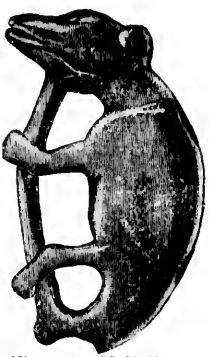


Fig. 127. Half diam.

of them, especially when they are on a journey." The same writer* gives us to understand that the whites themselves made stone pipes, as, indeed, we might readily surmise, for a pipe of this kind would prove much more serviceable, one

* See Appendix L.

may almost say, more faithful, in those days of rough experiences, than the European "clay" was likely to be. Accordingly, we observe in many stone pipes, patterns that are suggestive of European rather than of Indian taste, although in the matter of workmanship there is no evidence of superiority.*

Fig. 128.
Seven-eighth dia.

Fig. 129.
(From pipe bowl.)

Fig. 129*a*. Seven-eighth dia.

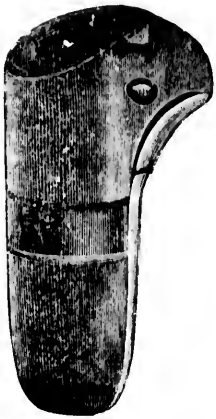


Fig. 132. Seven-eighth dia.

Fig. 130. Full size.

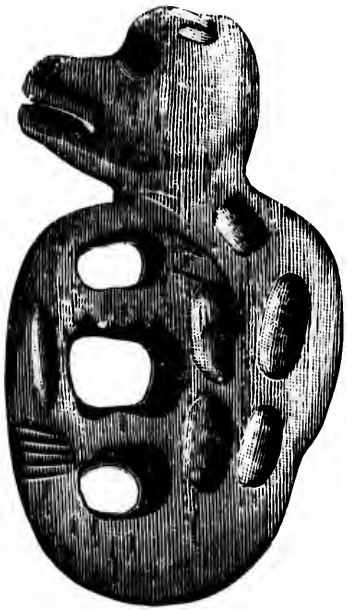


Fig. 131. Full size size.

Most of the stone pipes have been made for use with wooden stems, and the larger number of them are provided with a small hole at the base, by means of

* See Appendix L.

which they might both be bound with a string to the stems when in use, and maintain their attachment when laid away, or when carried on the person.

It is as difficult to decide what is the oldest form of pipe, as it is to settle whether clay or stone pipes took precedence. A simple tube like a cigar-holder, would seem to have some claims as the original pipe, but although such tubes are found in this country, they do not appear to have been so employed. The late Ven. Archdeacon McMurray of Niagara, assured me that he had seen such tubes used among the Ojibwas of Lake Superior for cupping purposes. Only some of the tubes we find are much wider at one end than the other, and in every case the end through which the smaller hole passes, is too thick to hold in the mouth with any comfort, while in no instance are there any tooth marks or other signs of wear. Mr. C. B. Moore* thinks such tubes were used as pipes by the natives of Florida, and Rau states that, "The Gosh-Utes of Western Utah use at the present day small pipes of somewhat similar shape, and hence it is not altogether improbable that the tubes just mentioned were smoking utensils."

It seems clear that pipes of this kind were used in many parts of America, but their employment in this province is more than doubtful.

What may be regarded as an extremely old form of pipe was found in the township of Albion, county of Peel. It is roughly suggestive of the platform or monitor type. (Fig 87).

Shapes seem to have been as various as the whims of the pipe-makers. There does not appear to have been any regulation form even for the ceremonial pipe, calumet, or pipe of peace, as it has been called. The pipes figured 110 and 112 are very peculiar, and are known as disk pipes. A few of similar design have been found in Kentucky, Tennessee and other States.† Mr. Douglas, of the New York Natural History Society, has several in his collection.

Among pipes here figured there are some that seem to carry marks of the white man. Without attempting to point these out, or assign reasons for supposing them to be wholly or partly indebted to European contact for their form or their finish, it may be left to the reader to exercise himself in distinguishing those from the others.

* Certain Sand Mounds of the St. John's River, Florida, p. 46. Philadelphia, 1894.

† Antiquities of Tennessee, by Gates P. Thruston, pp. 199-201.

STONE HAMMERS.

It is probable that one of the first tools used by early man was a hammer. From the employment of *any* stone that might be handled, experience would lead to the selection of forms and qualities most suitable. Held directly in the hand, a tool of this kind would answer quite well for rude flaking operations, breaking bones, cracking nuts, beating roots, bruising seeds, and for other simple operations, but the necessity for striking heavier blows, led, in process of time to the attachment of handles. The number, however, of hammer-heads fitted for the reception of a

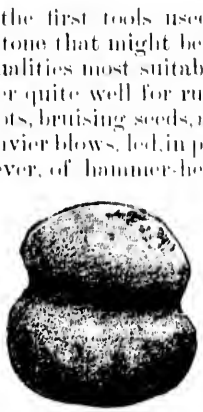


Fig. 133 Quarter diameter.

handle must have been exceedingly small (figures 133, 134), in this part of the continent, judging from the few that have been found. Most of those in our collection are merely circular or ovate pebbles, considerably flattened on two sides, and apparently so formed by water-wear. Some of these are artificially pitted on the flattened sides, as if for assistance in grasping, and the edges usually show the use to which the stones have been put. They seldom weigh more than two or three pounds. A few weighing from four to eight pounds have been collected at wide

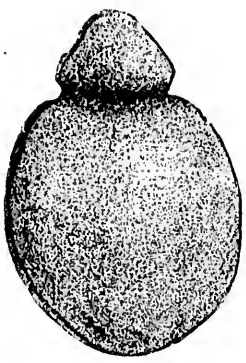


Fig. 134. One-fifth diameter.

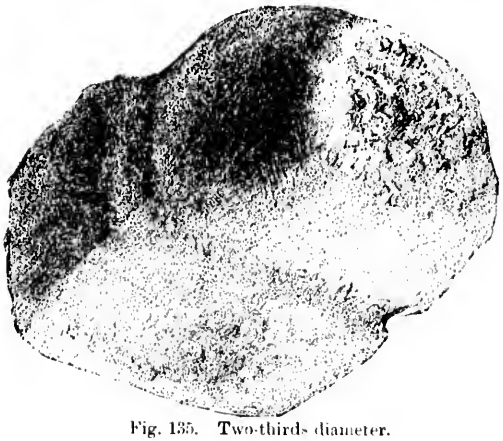


Fig. 135. Two-thirds diameter.

intervals over the province. One in our possession, said to have been found near Leamington in Essex county, weighs about ten pounds, and like all the larger specimens is grooved. A very fine small specimen found in Lanark county, is provided with a hole for the handle. This is quite a rare occurrence in America. In general outline this specimen may be said to have a European look, and one is tempted to regard it as the work wholly, or in part, of some old French trapper. A square faced one (figure 135) is of extremely rare occurrence.

STONE AXES OR CELTS.

Axes or celts are a modification of the hammer. They are mostly of two kinds—plain and grooved, but a few are of intermediate form, that is, slightly grooved (figures 136 and 137). In Ontario the plain ones are by all odds the most numerous, and a very large proportion of them should be called adzes, rather than axes, on account of their form, and consequent position when attached to the handle. They are of all sizes, from two to twelve or more inches

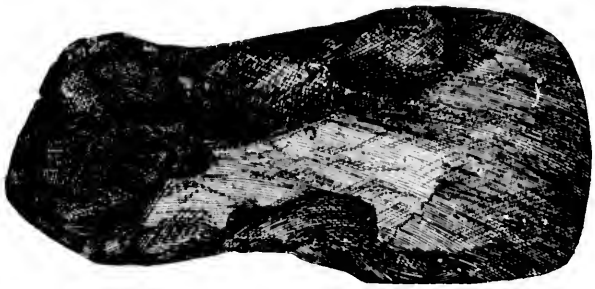


Fig. 136. Two-thirds diameter.

long, and are generally made of some primary rock, as syenite, diorite, gneiss, or granite. A few of Huronian slate have been collected. One feature characterizes the form of all such implements or weapons—they taper towards the pole. When symmetrical as viewed from all sides, they may be regarded as axes, but when symmetrical only as viewed from the wider side, adzes. In the former case there is not much difference between the breadth and thickness of the tools, but in the latter the difference is very marked, and one of the wide sides is always nearly,

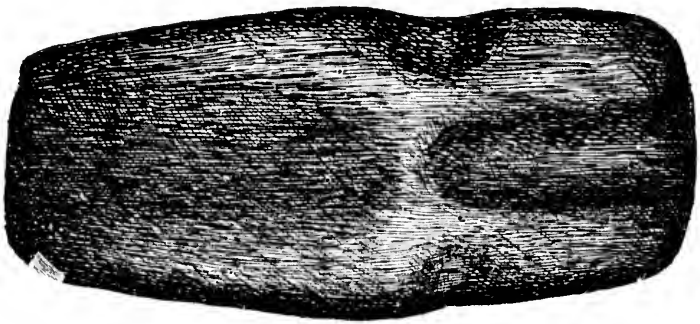


Fig. 137. Two-thirds diameter.

or quite flat, presenting thus a good bearing for attachment by means of thong or sinew binding to a T, Y or L-shaped piece of wood for a handle. When properly bound or lashed in this way the advantage of the gentle taper consisted in the tendency to tighten the tool in its fastenings as each blow was struck. One cannot but admire how exactly the degree of taper is adapted to the requirements of the case—with more, they would too easily have dropped out of their bearings; with less, it would have been difficult to keep them tight, on account of the ease

with which each blow must have tended to displacement. There are, in the whole range of Indian workmanship, few better examples of the nice adaptation of means to an end than is afforded by the shape of a plain, polished stone axe or adze.

Grooved axes are comparatively rare in Ontario, and few of them are at all comparable in form and finish to similar tools found in Ohio and many other states. The general form of the latter, and the fact that the groove is usually

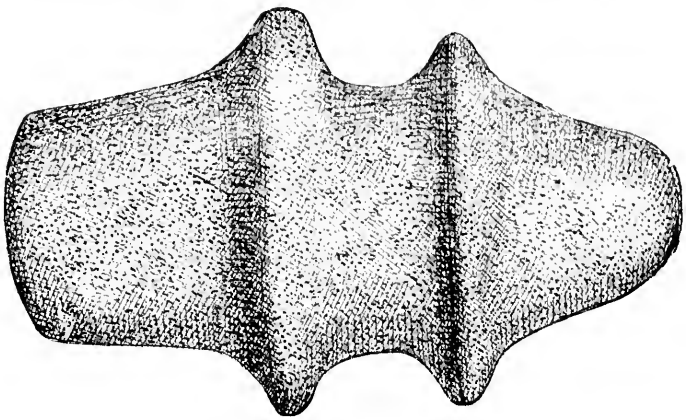


Fig. 138. Two-thirds diameter.

cut round two sides and one edge only, show that they have been used as axes. Ontario specimens, on the other hand seem to have been employed as adzes, as the grooves go all round the stone, and are deeper on the edges than on the sides. A common belief is that these stone heads were inserted in the cleft of a split stick, which was then tightly bound at the end to keep the axe in position, and immediately behind the head to prevent further separation of the wood;* but used

Fig, 139. Half diameter.

as adzes, of course, any such method was impossible. Figure 138 shows what is without doubt an axe. It is symmetrical when viewed from all sides. The form is very rare.

The making of stone axes must have been tedious and laborious. In some cases the material seems to have been procured from drift blocks of considerable size, perhaps by means of first heating the mass and then pouring water upon it, to produce cleavage by contraction. At any rate specimens are numerous,

* Even a hundred and fifty years ago this belief seems to have become common among white people. See Appendix A.

showing that by some means suitable portions have been detatched from boulders for this purpose. In other cases the workman has selected some hard, water-worn stone, whose shape suggested the tool he desired. Of this kind a few unfinished specimens are in our collection. When the blocks were split by any method, the work of shaping was no doubt accomplished chiefly by rubbing down the angles, but in other cases much pecking had to be done to produce the required symmetry before the work of polishing could proceed.

Figure 139 is the only stone axe I have ever seen having a raised pattern on its side. The elevation is slight, but has been worked with great care.

The smallest objects of this class seem too short either to have been fastened to a handle in the usual way, or even for use directly in the hand. On this account it is surmised that they were firmly cemented into wooden club-heads, as is the custom yet with certain savage peoples. Such a weapon could be used very effectively at short range for being thrown, or in a hand-to-hand conflict.

CHISELS.

Belonging to the celt class of tool or weapon are the objects known as chisels Their chief difference consists of their being more slender in form than the celts, and perhaps a larger proportion of them are not so well finished. In many cases it is not unlikely that they are simply the worked-up odds and ends resulting

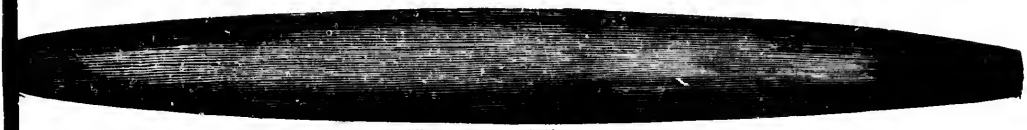


Fig. 140. Half diameter.

from the shattering of a boulder. In a few instances, however, they are well-formed and highly polished, and occasional specimens are met with sharpened at both ends. The finest specimen of this kind in our collection was found in Brant county, figure 140.

All such tools as may be included under the head axes or adzes and chisels are commonly known as "skinners," or "skinning stones." It would, of course, be unsafe to say that they were not so employed, but there does not appear to be any reason

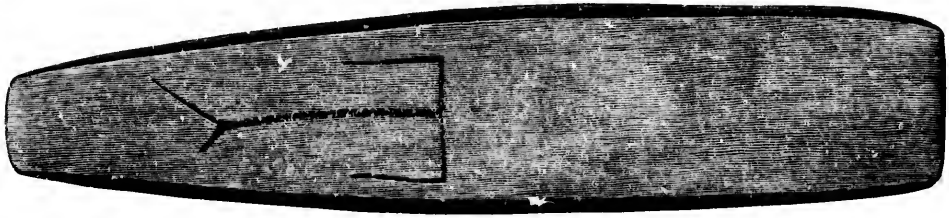


Fig. 140a. Half diameter.

for the use of a special tool for such a purpose, especially when, in any event, chipped chert or flint instruments must also have been employed, and with more advantage.

Figure 140a represents an implement of this description, on which has been cut what is usually understood to be a conventionalized human figure. As this specimen is made from an argillaceous stone, unlike most implements of the kind its use may have been different from that of those produced from harder material.

GOUGES.

This class of tool is less frequently met with than are celts and chisels, although they are formed of the same kind of stone. They vary in length from four inches to fully a foot (figures 141 to 145). Some are hollowed from end to

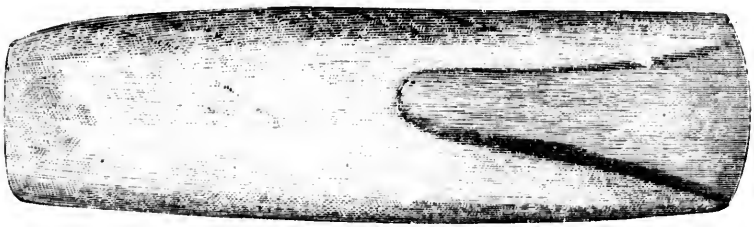


Fig. 141. Two-thirds diameter.

end, and some for only from one-third to one-half of their length. In Western Ontario the hollowed portion usually approaches the arc of a circle, but in the eastern part of the province most of the hollow is comparatively flat, having the

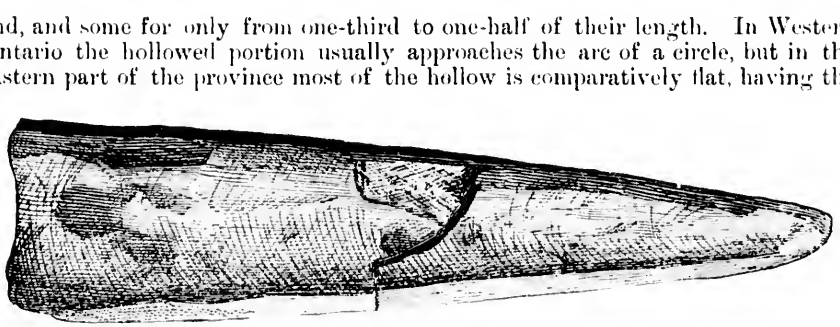


Fig. 142. Two-thirds diameter.

sides rise sharply, almost at an angle. Many specimens of the latter kind have been found in Lanark county.

Like the celts they are generally made to decrease gently in size towards the head, as if they too had been intended for attachment to a handle and worked as

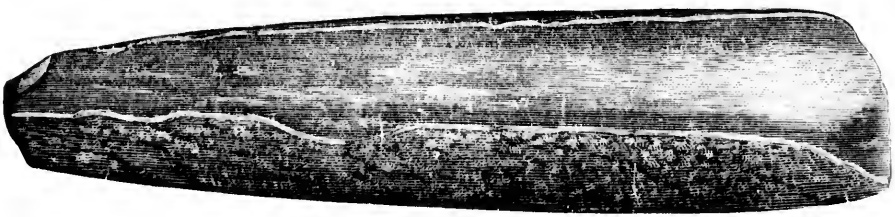


Fig. 143. Two-thirds diameter.

adzes, for in many specimens it is observable that the upper portion of the hollowed side is quite flat, while the opposite side is rounded. In one specimen there is a slight transverse groove on the round side, indicating very clearly that in this

instance at least the intention was to bind the tool to a handle. As there is scarcely any taper to this specimen, the groove may have been found necessary to keep the tool in position when fastened to its handle.

There is much diversity of opinion regarding the use or uses of the so-called gouges. They have been referred to as tapping-tools for maple trees during the

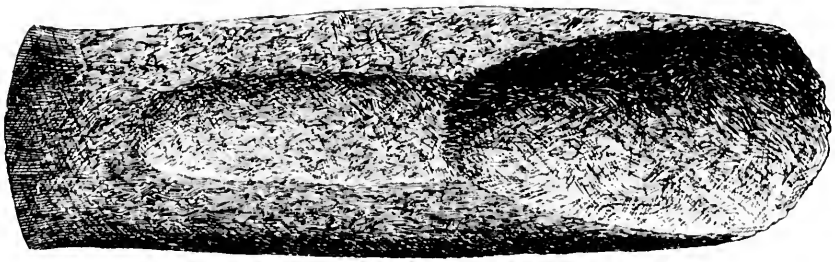


Fig. 144. Seven-eighths diameter.

sugar-making season, without a thought being given to the obvious difficulty of making a deep enough incision with any tool of this kind, and wholly without any regard to the impossibilities of subsequent "boiling down" in clay pots or kettles. They may have been employed in hollowing canoes, troughs and wooden mortars. Fire having first been applied, the gouges might have been advantageously used to chip away the charred material. It has also been suggested that their chief use was in the removal of bark from trees, either for use in making canoes, or the walls of the wigwam. Some have regarded them merely as hide-dressers, or flesh scrapers.

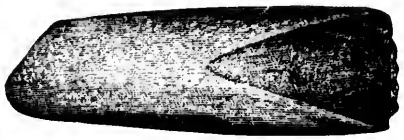


Fig. 145. Half diameter.

They may have been found useful in all of the three latter operations, or, what is quite as likely, they may have been applied to some other use or uses that we are not able even to guess at.

SLATE KNIVES.

A somewhat rare form of stone relic found in Ontario is the slate knife—if knife it be. Most of them are spear or lance-shaped (figures 146 to 148), and are made from that beautifully veined argillite known as Huronian slate. Others are made from a brown variety. Specimens of other shapes are less common, but usually much larger than the spear-shaped ones. One of the commoner forms is semi-circular, the straight side being thick and strong, while the round side is ground to a good cutting edge. Some have an upright handle, as figure 146a.

By some authorities these are regarded as being of Eskimo origin.* However

* Of this the Rev. W. M. Beauchamp has no doubt. Mr. Beauchamp has given much study to this matter, and writes to me that he is convinced of their Eskimo origin. My own belief is that they are of Nascopie origin.

For a full account of these, see Ethnological Results of the Point Barrow Expedition, by John Murdoch, in the Report of the Bureau of Ethnology for 1887-88, pp. 150 to 161. The figures given resemble very closely the specimens found in Ontario, and it is noteworthy that slate is always used for the Eskimo knives.

this may be, tools of this type were, until quite recently, in use among the Eskimo, and were known as women's knives, because employed in all such operations as fall to the lot of the women to perform, as, for example, the scraping of raw hides and skins in preparation for clothing.

Fig. 146. Two-thirds dia.

Fig. 146*a*. Half diameter (nearly).

The spear-shaped knives found in this province were no doubt lashed to a short shaft or handle, into which the neck of the tool was inserted, and it is to be observed that in the majority of instances the necks are serrated as if to afford grip to the thongs or sinews binding the knife to the handle. It is worthy of remark that the neck, or portion inserted in the handle, usually tapers considerably, and the teeth formed by the notches point backwards, or away from the cutting edge (figure 148). At first sight this would appear to be just the opposite of what was required to give the blade firmness in its socket, but when the action of the tool is taken into account, this form and method of attachment were no doubt the best that could be devised. The Eskimo and other savages nearly always work the knife towards the body, never using the thumb to support the blade.

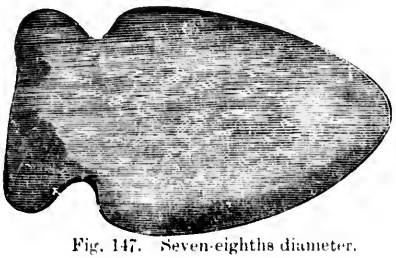


Fig. 147. Seven-eighths diameter.

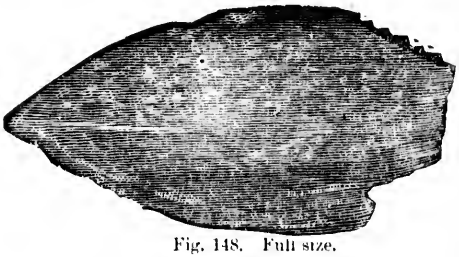


Fig. 148. Full size.

SHELL.

The waters of Ontario did not yield material of this kind large enough or strong enough to prove serviceable for a wide range of use. Small helices were

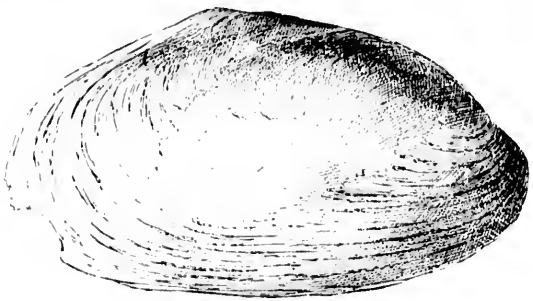


Fig. 149. Full size.

perforated for beads, and the valves of the common unio or mussel, commonly known as the clam, were employed as scrapers, and, if one may judge by appear-

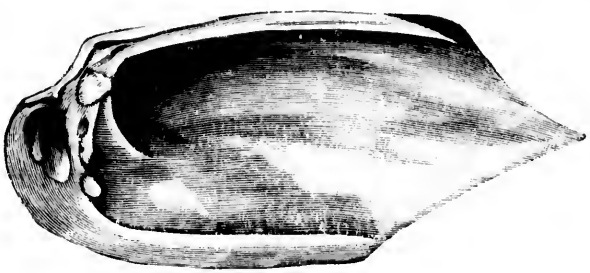


Fig. 150. Full size.

ances, as slicks for smoothing the inside of clay vessels when in the plastic state (figures 149 and 150). Only a few specimens (not more than half-a-dozen) have

Fig. 151. One-fifth diameter.

come under my notice, showing attempts to form wampum, or ear-drops, from unio shells.

The material in demand for such purposes was the shell of a large univalve (Busycon perversum, chiefly) from the Gulf of Mexico and eastern coast of Florida (figure 151.) Such shells weigh several pounds, and portions of them are nearly one-fourth of an inch in thickness. Of these and a few other large kinds, wampum* and ornaments of various kinds were made. From specimens in the museum the several steps in the manufacture may be followed. The shell appears first to have been rudely broken, then pieces were sawn by means of flint flakes into strips of the required width. If for wampum, these would measure from half an inch to three-fourths of an inch across, and the next step was to cut off pieces

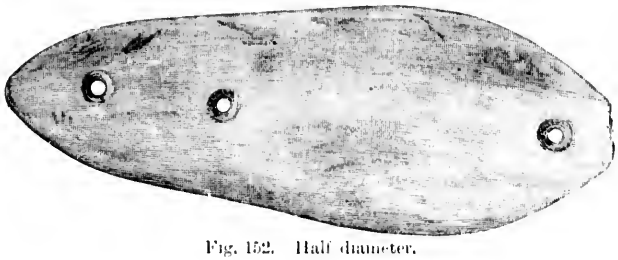


Fig. 152. Half diameter.

to form squares which were subsequently bored from each side through the middle, and, last of all, the corners were rubbed down, and the pieces made as nearly circular as possible.

Sometimes large oval and pear-shaped portions of shell were employed as gorgets, and were probably worn suspended from the neck (figures 152 and 153). So far as I am aware only one specimen of this kind bearing an incised or engraved

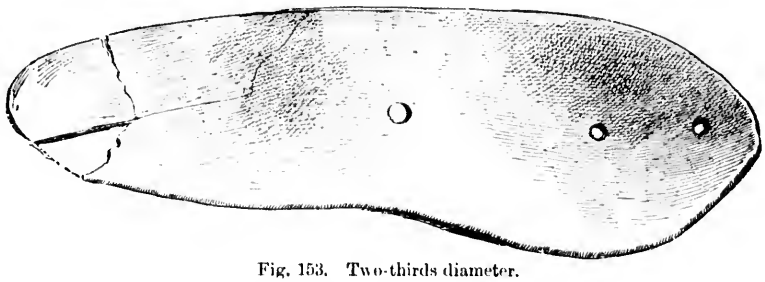


Fig. 153. Two-thirds diameter.

device has ever been found in Ontario, although such are of frequent occurrence to the south of us. Many beautiful ones have been unearthed in Tennessee,† Georgia and other states, where also the natives produced hoes, axes, gouges, pins, labrets, drinking cups and even fish-hooks from Busycon perversum, and other shells.‡

* See Appendix I, J, K.

†Full descriptions of these may be found in General Thruston's Antiquities of Tennessee, pp. 322-352. Robt. Clarke & Co., Cincinnati, 1890.

‡See Art in Shell of the Ancient Americans, by W. H. Holmes, in report of Bureau of Ethnology, for 1880-81. Washington, 1883.

Some strings of wampum in the possession of the pagan Iroquois in Brant county, are apparently made from fragile (home) river unio shell, as many of the beads are scarcely more than a millimeter in thickness.

Ancient commerce with the south for large shells would seem to have exceeded that with the northwest for catlinite and copper, if we may judge from

Fig. 154. Full size.

Fig. 155. Full size.

what is exhumed, and notwithstanding the immense value that a large southern shell must have possessed by the time it reached this country, we occasionally find one or more of them in graves, from the shores of Lake Erie to the Georgian Bay. It would not be an unfair comparison to estimate one as the equivalent of a gold watch, and yet they are placed side by side with the remains of departed "braves." Figures 154 and 155 show respectively a pin of shell, and a circular gorget perfectly plain.

CEREMONIAL OBJECTS.

Articles in considerable variety of form, but mainly made of striped (Huronian) slate, the uses of which are totally unknown, generally go by the name of ceremonial weapons. The illustrations show a few of the more common shapes. Those like figures 156 to 167 are called gorgets, or tablets, and are supposed by some to have been worn suspended from the neck as every-day ornaments, but as the holes seldom exhibit any signs of wear, it seems more probable that they were not so employed. For the same reason they could not have been used for rounding or smoothing thongs, and it is quite certain they were not shuttles, because the aboriginal methods of weaving did not require the use of such an article.

(5 P.M.)

The winged forms (banner-stones, so-called) are much more elaborate, and the workmanship on many of them is remarkably good (figures 169 to 175). The greater part of the work in making tablets consisted of rubbing thin pieces of slate into shape, but in the formation of winged specimens much more was required, for the material had to be at least an inch in thickness to admit of

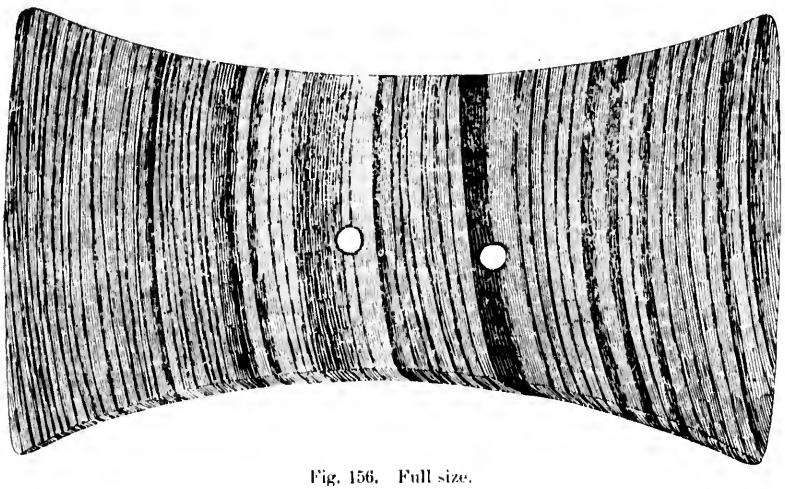


Fig. 156. Full size.

boring the large central hole, and this operation required a good deal of skill, and much patience. After this was done, long and persistent pecking was required to reduce the wings to the proper degree of thinness, as well as to produce the desired outline. In nearly every case the barrel, or central portion in

Fig. 157. One-third diameter.

Fig. 158. One third diameter.

line with the hole, projects equally on both sides, but sometimes the wings are not symmetrically formed (figure 175).*

Occasional specimens, also accurately bored, and having straight outlines, are worked at each end almost to a sharp edge, and have been referred to as ceremonial axes (figure 176).

*Small specimens of this type, but having the barrel formed wholly on one side, have recently been found by Mr. Clarence B. Moore in Volusia county, Florida. They measure little more than an inch and a quarter in length, and the greatest breadth of the wings was less than an inch. Mr. Moore does not mention the kind of stone. A much larger specimen, three and a half inches long, with symmetrical barrel, was found in the same place. It is referred to as a "Ceremonial Axe of Stone." *Certain Sand Mounds of the St. John's River, Florida*, by Clarence B. Moore. Part II, Philadelphia, 1894.

Those known as "bird amulets," figures 177 to 180, have probably been found more frequently in Ontario than in any other part of America. Records of their occurrence elsewhere are very rare, but some have been found in New York

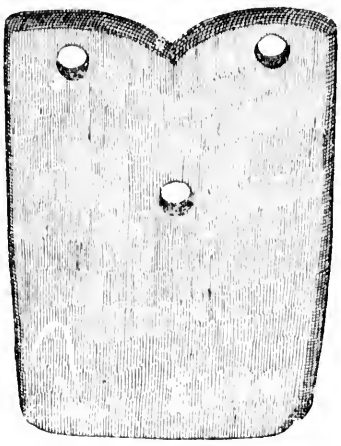


Fig. 159. Two-thirds diameter.

Fig. 160. Two thirds diameter.

State, and in Ohio. Although for convenience known as bird-amulets—most of them being apparently highly conventionalized bird forms—now and again one sees specimens that are *not* suggestive of birds, whatever else they may have been

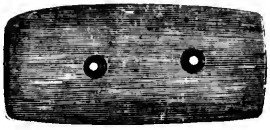


Fig. 161. One-third diameter.

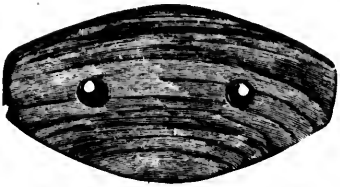


Fig. 162. One-third diameter.

Fig. 163. One-third diameter.

intended to symbolize. Few of such objects exceed five inches in length, but there are some of slender proportions from six to eight inches long, and one unfinished specimen in the Provincial Museum is about ten inches in length. In some

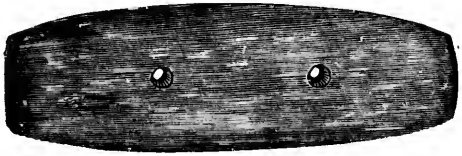


Fig. 164. One-third diameter.

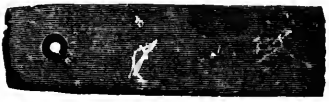


Fig. 165. One-third diameter.

instances there has not been any attempt to imitate eyes (figure 178), even by means of a depression, but in the majority of cases the eyes are enormously exaggerated, and stand out like buttons on a short stalk, fully half an inch beyond the side of the head (figure 179). In every finished specimen a hole is bored diagonally through the middle of each end of the base, upwards and downwards. If merely for suspension when being carried, one hole would be sufficient, but the probability is that

these were intended for fastening the "amulets" to some other object, but what, or for what purpose is not known. It has been suggested that these articles

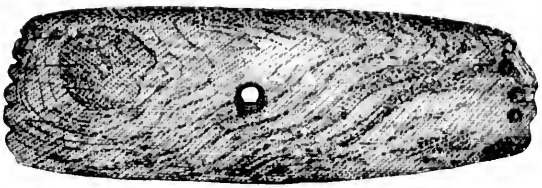


Fig. 166. One-third diameter.

Fig. 167. One-third diameter.

were worn on the crown of men's heads as ornaments; that they were worn in the same way by women to indicate that they were married; that they were employed in playing a game; that they are totems of tribes or clans; and that

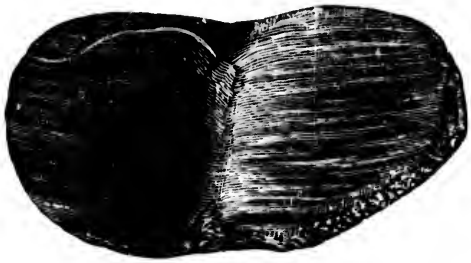
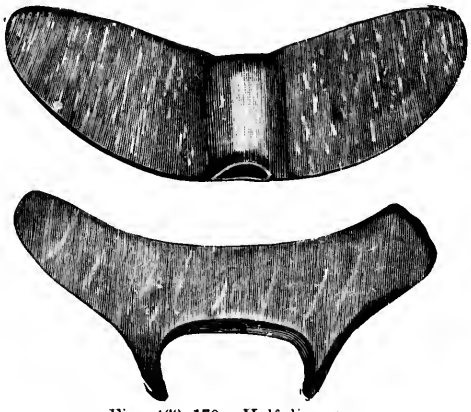


Fig. 168. Unfinished Banner stone.

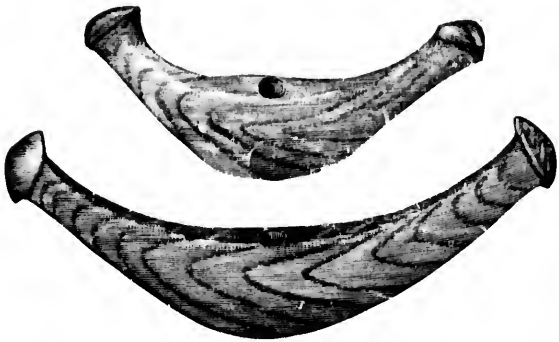
they were talismans in some way connected with the hunt for waterfowl. They are, at all events, among the most curious and highly finished specimens of Indian handicraft in stone found in this part of America, and the collection of them in the Provincial Archæological Museum is said to be the best that has been made.



Figs. 169, 170. Half diameter.

Another form is known as the "bar amulet" (figures 181 to 183). It invariably has a fairly straight base, but the other sides take various curves, and there is never any attempt to represent an animal. The holes, however, are bored at

the ends as in the case of the "bird amulets." A remarkable exception to this may be seen in figure 183, where the perforations are made, one from each side.



Figs. 171, 172. Half diameter.

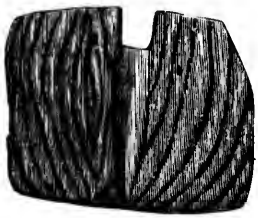


Fig. 173. Quarter diameter.

Fig. 174. Nearly full size.

STONE TUBES.

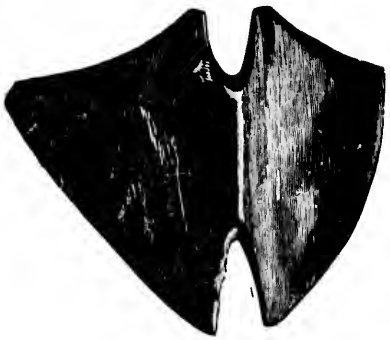


Fig. 175. Half diameter.

Fig. 176. Two-thirds diameter.

So little is known regarding the use of stone tubes that they might safely be classed with so-called "ceremonial" articles. They have been described as tobacco pipes, as simple forms of telescope, as instruments for blood-letting, and

as part of the medicine-man's outfit. Nothing would seem more reasonable than that in the evolution of the tobacco pipe the straight form should have preceded the curved one, and yet there is no evidence that any of the stone tubes found in Ontario were so used. Some of the specimens we have are too large, some are

Fig. 177. Half diameter.

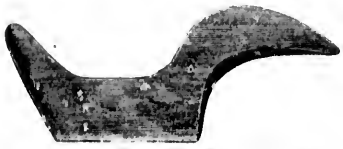


Fig. 178. Half diameter.

too small, and others are not the right shape. A fragmentary specimen is said to have been originally upwards of a foot in length. The hole is about three-fourths of an inch in diameter in the portion we possess, and is said to have been

Fig. 179. Half diameter.

uniform throughout; another specimen in perfect condition is seven inches long with a hole only three-eighths of an inch in diameter all the way through, and shorter specimens have a wide hole at one end, and a very small one at the other.

Fig. 180. Full size.

The last form is the only one that is suggestive of a possible pipe, but I was informed by the late Rev. Archdeacon McMurray, of Niagara, that he had seen tubes of this kind used in the "Northwest"* for bleeding purposes. The wide end was placed over the affected part—pieces of ignited bark were dropped

*The time referred to by him was many years ago—perhaps fifty—and the Northwest then meant the country about Lake Superior.

through the hole from the upper end which was subsequently covered with the thumb while the tube was firmly held in place.

It is not improbable that some of these tubes were used for drinking purposes during those periods of life when persons were prohibited from allowing water to touch their lips, if it could be shown that this custom was ever practised

Fig. 181. Half diameter.

by the Indians here, as we know it to have been among other peoples. Indeed the custom is a widely spread one, and not by any means confined to the continent of America.

"In Ujiji, Cameron saw an old chief sucking pombé, the native beer through a reed, and later on, in his narrative, we learn that the reed is generally used for the purposes of drinking." "Among the Narringeri of Australia, when young

Fig. 182. Two-thirds diameter.

men are to be initiated into the rank of warriors, during the ceremonies they are allowed to drink water, but only by sucking it up through a reed."*

Short tubes, not more than two or three inches long, and disproportionately thick, were probably worn suspended as ornaments.

The only tubes in the provincial collection not made of Huronian slate, are of a material strongly resembling in color and appearance, the lithographic stone of Germany.

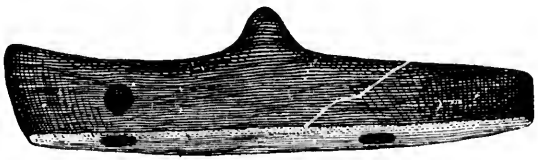


Fig. 183. Half diameter.

Fig. 184. Showing position of holes on under side of Fig. 183.

In all probability the boring of the tubes was accomplished by means of flints fastened to wooden shafts, but whatever the process was it must have been an exceedingly slow one. In the larger specimens, drill marks are quite clear, but in the smaller ones the holes have been rubbed smooth after the boring was completed.

*From the Medicine men of the Apache, by Capt. J. G. Bourke, in the report of the Bureau of Ethnology for 1887-88. In this paper Capt. Bourke refers to the use of copper cylinders, bones, reeds and stone tubes for drinking purposes among the native Mexicans, Brazilians, Eskimos, Hindoos (Brahmans) and others, and quotes Schoolcraft as mentioning "suction pipes of steatite" found by him in mounds. These, Capt. Bourke says, "may have been the equivalent of our drinking reeds."

BONE TOOLS, ETC.

Many tools and a few ornaments were made of bone and horn, but no weapons appear to have been produced from these materials, unless we include those known as harpoons having one or more barbs. (Figures 184 to 186.)

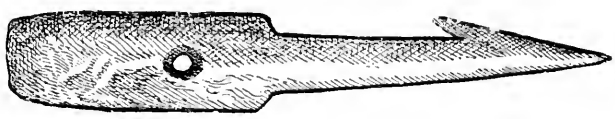


Fig. 184*a*. Half diameter.

On account of the extensive use of bone by the Eskimo there is a strong temptation to refer many of our specimens of this kind to Innuit origin, especially as the resemblance of ours to theirs is often very marked. But, in this respect,

Fig. 185. Half diameter.

there does not appear to be any more reason for so doing than there is for attributing the same origin to flints, vessels of soap-stone and some other things. Still, when we take into account the Huron-Iroquois tradition as to the former

Fig. 186. Two thirds diameter.

abiding place of the nation on the north shore of the gulf of St. Lawrence, we may at once concede the probability of strong Eskimo influences affecting the work of our Indians. That bands of these people habitually found their way south and west of the Ottawa is extremely improbable, and it has not been shown that they ever resided here before the advent of our Indians. Anything, therefore, indicative of Eskimo influence may be accounted for as already mentioned, by the old-time contiguity of the peoples, "down by the sea," if, indeed, not the workmanship of the Montagnais-Nascopies, who, it seems clear, occupied a large portion of eastern Ontario at some distance back from the St. Lawrence.

Figure 187 represents a fish-hook found in Victoria county. Barbed bone hooks are extremely rare. I have heard of two or three others but this is the only one I ever saw. It is not too unreasonable to suppose "white" influence to have been at work here at a comparatively recent date.

Fig. 187. Full size.

It has been noticed that articles made of bone a. much more frequently found in some parts of the country than in others. In the Ottawa and St. Lawrence counties few bone specimens occur. In the old Huron country they are comparatively rare, and not many are found in the western counties. On the other hand large numbers have been collected in the neighborhood of Toronto, of Brantford, and in North Hastings county.

Fig. 188. Full size.

Awls are the most common form of bone tool. They are from two inches to eight or ten inches in length. They are sometimes spoken of as needles, but it is most likely that their use was to perforate bark and skin before inserting the thong or fibre employed for sewing. Figure 188 illustrates a perfect specimen of this kind.

Fig. 189. Full size.

Another form also known as a needle is shown at figure 189. It was almost certainly employed in the netting of snow-shoes, and in the making of grass mats, for passing the binding string or thong of sinew or root fibre in and out among the stalks of grass as they hung suspended from a bar in front of the worker. It is, therefore, more like a shuttle, although it was not *shot*. An unfinished Ojibwa mat in the Provincial Museum, yet attached to the original bar, shows how the work was and is performed by the native women.

As pins to fasten clothing on the person bone was the best material procurable, and it is not unlikely that many of the so-called needles were employed in

this way. Specialized forms are found occasionally on which some pains have been taken by way of ornamentation, as may be seen by figures 190 and 191. Pins of this kind are generally spoken of as pottery markers, but as a rule the designs on Indian clay vessels required no special tool.

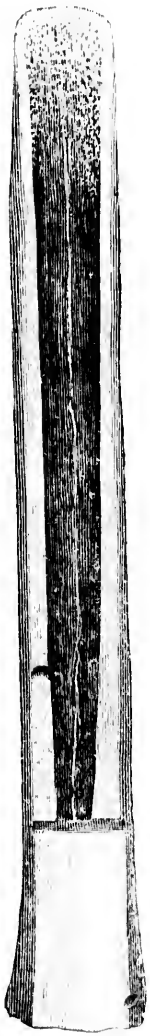


Fig. 192*a*. Half diameter.

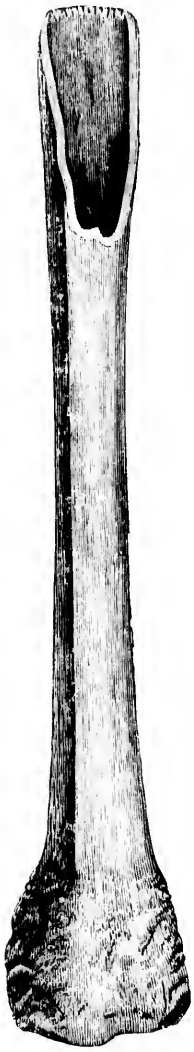


Fig. 192*b*. Half diameter.

Implements for dressing skins very effectively were made from the metacarpal bones of large quadrupeds like the moose, caribou and common deer (figures 192*a* and 192*b*). Some of these tools are quite smooth at the scraping edge, as figure 192*a*, while others, like 192*b* are neatly notched to give them additional grip.

What may have been three tools of this kind, are perforated near the condyles, but for what purpose it is not easy to say. Murdoch figures an Eskimo scraper similarly bored, without making any reference to the hole.* Of the

Fig. 190. Full size.

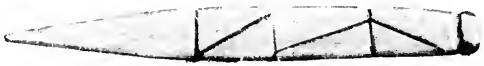


Fig. 191. Seven-eights diameter.

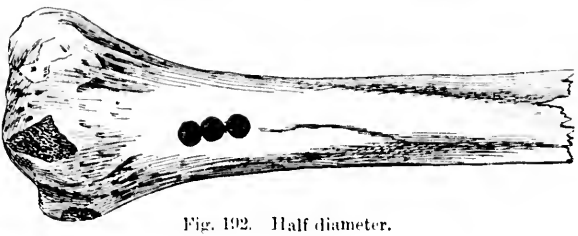


Fig. 192. Half diameter.

Fig. 193. Half diameter.

Fig. 194. Full size.

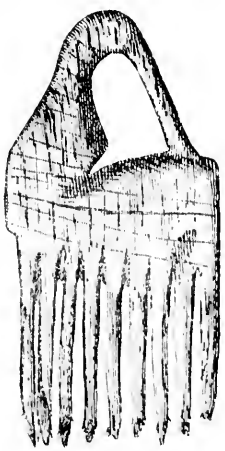


Fig. 195. Full size.

three tools referred to, one has three holes as shown in the figure ( ) while the others have only one each, as in the Point Barrow specimen of Mr. Murdoch.

*Annual Report of the Bureau of Ethnology, 1887-88, p. 299.

A knife-like form of what may also have been a scraper is shown at figure 193

Combs (figures 194 to 197), beads and tally-bones (Figure 198), from half an inch to three inches long (figure 198), pendants and even pipes were made from

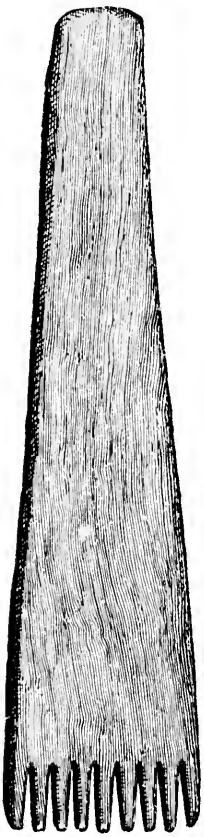


Fig. 196. Two-thirds diameter.

Fig. 197.

Fig. 198. Half diameter.

Fig. 199. Full size.

bone. The last class of bone objects it should be said is very seldom seen. Only one has come into our possession so far, and it may have been a make-shift figure 199).

Regarding specimens as figures 200 to 203 we can barely guess as to their use. Figure 202 is eleven and three-fourths inches long, and 201 is more than

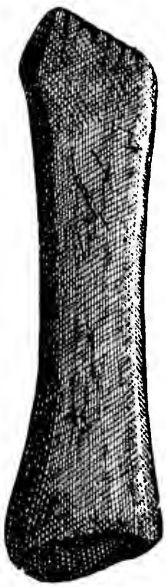


Fig. 200.

Fig. 201.

Fig. 202.

Fig. 203.

half that length. Both are grooved at one end as if to produce a pattern on something soft—perhaps for drawing lines to ornament articles of clothing.

Carving in the proper sense was seldom attempted in bone. The pins already referred to had their ornamentation effected simply by means of notches and lines, but in figures 204 to 206 we have something more pretentious.

Fig. 204. Full size.

Fig. 205. Full size.

Fig. 206. Full size.

Figure 204 is whale-like in outline. 205 was probably worn as a pendant, as was also 206, which is the best specimen of carving in bone in the Provincial Museum. The neck is penetrated by a small hole from side to side.

Fig. 207. Half diameter.

Figure 207 is a fairly-well carved specimen of uncertain use found near Toronto.

Fig. 208. Full size.

Many carpal bones like figure 208 are found, more or less rubbed down, but it is not known with what intention.

HORN IMPLEMENTS.

Objects of horn are more seldom met with than those of bone, no doubt partly on account of the comparative scarcity of the substance, and perhaps be-

Fig. 209. Half diameter.

cause it is more liable to decay. Chisels, so-called, may have been used for barking trees, and for skinning animals they would have been quite as serviceable as

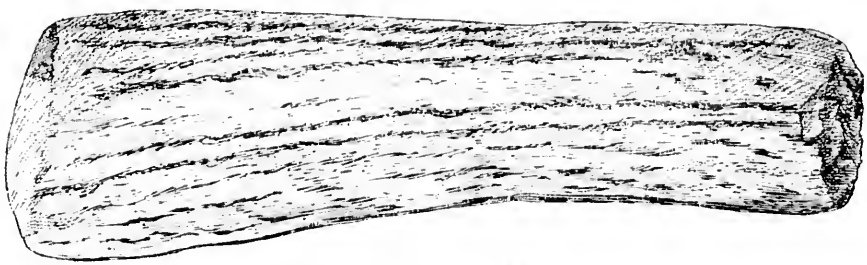


Fig. 210. Half diameter.

the stone celts. Figures 209 and 210 show what such bone tools are like. The smaller one is peculiar in having a hole, as if it were carried on the person.

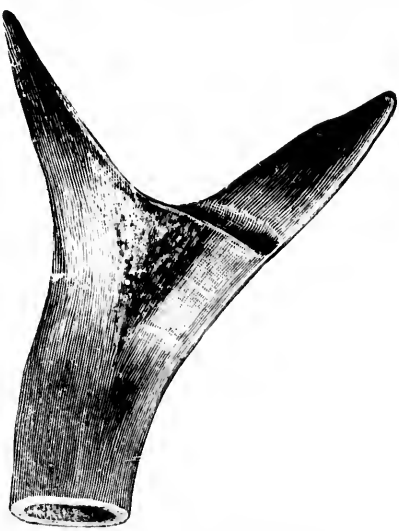


Fig. 211. Three-quarter diameter.

Specimens like figure 211 have been employed to smooth cords of some kind as shown by the grooves on opposite sides of the prongs—one is seen in the cut.

What are called arrow-straighteners are illustrated by figures 212 to 214. They all exhibit such signs of wear on the obliquely made holes as to warrant

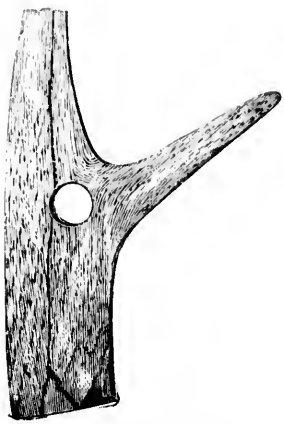


Fig. 212. Half diameter.

Fig. 213. One-third diameter.

the belief that they were employed as their name indicates, to straighten arrow shafts, either by using the tool as a pinch, or by weighting it with stones for a

Fig. 214. Seven and a half inches long.

time until the inserted shaft dried and retained its improved condition. Wooden arrow-straighteners of similar shape are still used by some western United States Indians.

TEETH.

The teeth of bears, wolves and other animals were used as necklaces. They were usually either bored or notched at the root end for being strung. Figure 215 represents the tooth of a bear which, although found in a grave, is neither notched nor bored.

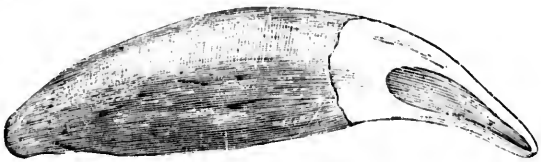


Fig. 215. Full size.

TOTEMS.

In view of the totemism which was so characteristic of American aborigines, one would be warranted in concluding that even this rude heraldic system would have led to the production of numerous representations of the animals adopted as symbols of various clans. On the contrary, however, specimens of this kind are exceedingly rare. In private collections it may be presumed that there are some, but, so far, only three pieces that may be fairly looked upon as totems

Fig. 216. Full size.

Fig. 218. Full size.

have reached our cases. Two of these (figures 216 and 218), of thin slate, one may guess to be a wolf and a bear, or perhaps the latter is meant for a beaver, or an otter. The third is recognizable beyond doubt as a turtle (figure 219.)

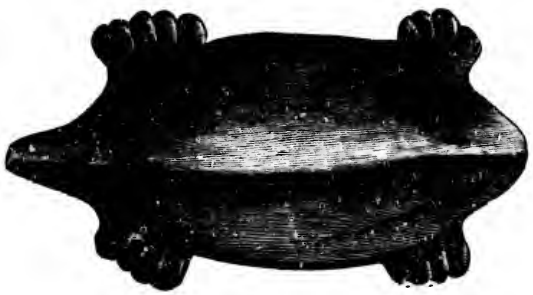


Fig. 219. Full size.

Of course it is not certain that these relics are totems, or, are intended to represent totems. The scarcity of such objects would favor the conjecture, if not the conclusion, that totemism did not, to the native mind, imply the necessity or even the expediency of thus typifying tribal symbolic animals for any purpose corresponding to our use of armorial bearings whether of families or of nations, but that the totem was regarded as a name and nothing more. It may have been that totemic symbols were usually depicted or wrought on perishable materials like skin and bark, in which case none need now be looked for.

(6 P.M.)

MISCELLANEOUS.

Specimens are frequently found that baffle us in our attempts to decide their use. Some of those have already been mentioned as bird amulets, and illustrations of other forms (figures 220 to 225), are here given. Figure 221 may

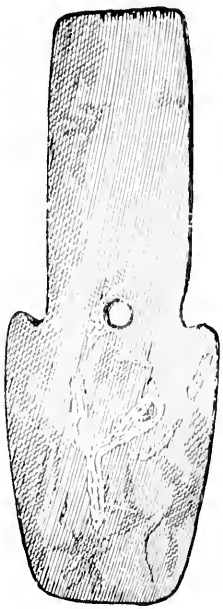


Fig. 220. Half diameter.

Fig. 221. Half diameter.

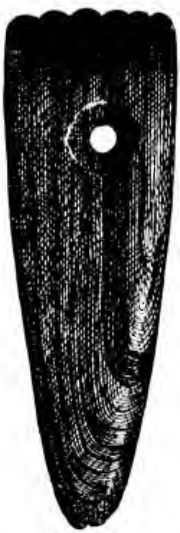


Fig. 222. Two-thirds diameter.

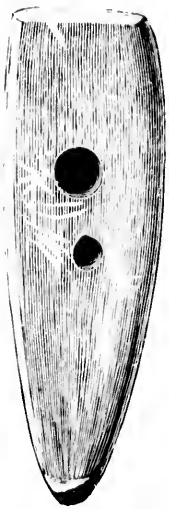


Fig. 223. Two-thirds diameter.

Fig. 224.

have been a pendant, and 225 may have been worn as an ear-drop, but what of the others? The position of the hole in each (and sometimes there are two) does

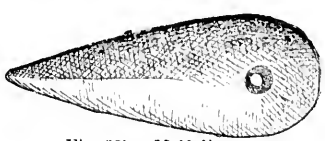


Fig. 225. Half diameter.

not indicate that it was bored merely for the object to hang by when carried on the person. They are all made of slate and must have been useless as tools.

There is little doubt that figure 226 was a tool of some sort, but its use is uncertain. The peculiar cross-section of the working end and the

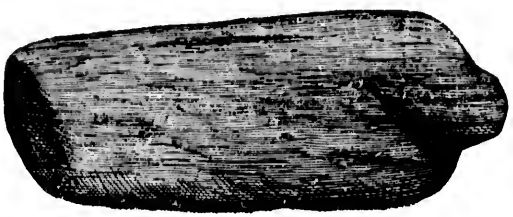


Fig. 226. Two-thirds diameter.

Fig. 227.
Cross section.

wear suggest that it has been employed in some manner to twist fibres, but even this may be a wide guess.

Fig. 228.

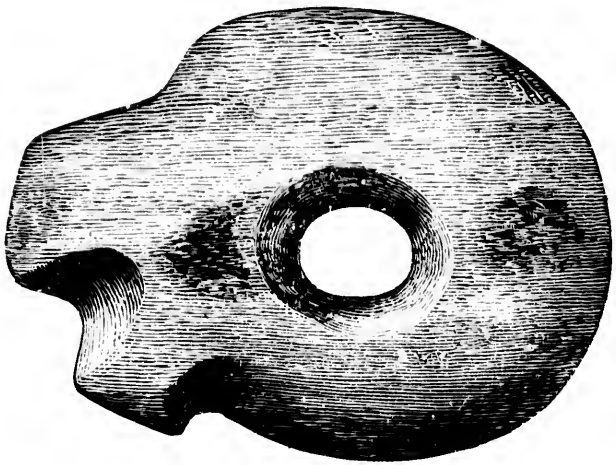


Fig. 229. Two-thirds diameter.

Figure 228 is equally problematical as to use, and what may be said about figure 229? In outline it is not unlike the pipe, figure 131, but it is much larger

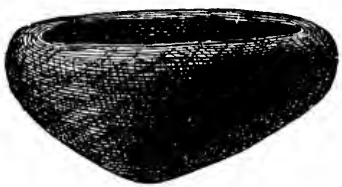


Fig. 230. Nearly full size.

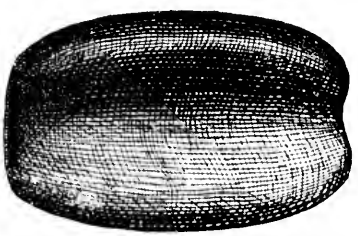
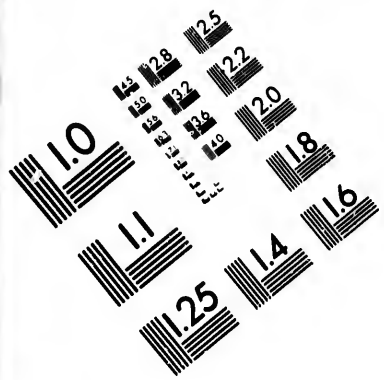


Fig. 231. Full size.

than pipes were usually made by Ontario Indians. As an unfinished specimen it possesses many instructive features as to methods of working stone.



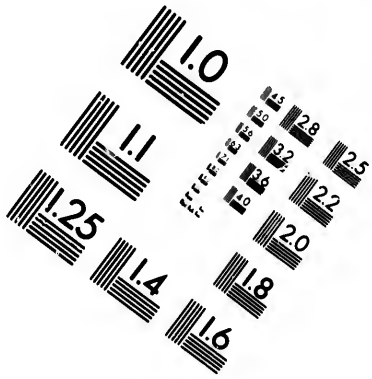
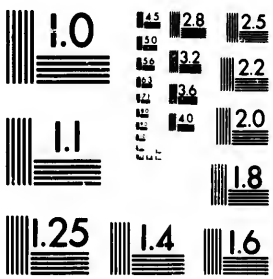
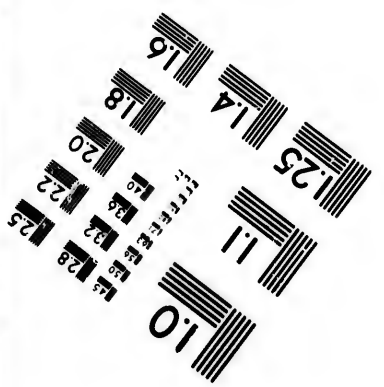
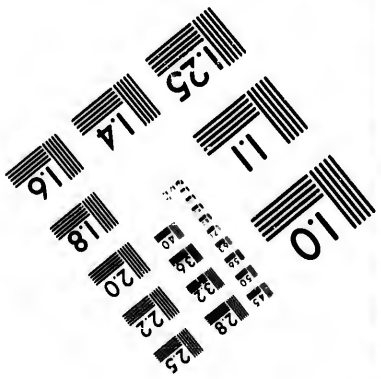


IMAGE EVALUATION
TEST TARGET (MT-3)







2.8
2.5
2.2
2.0
1.0

The small stone cup (figure 230) belongs to the class called paint-cups, but which may have been something very different. Figure 231 may have been

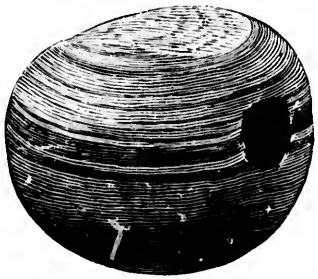


Fig. 232. Two-thirds diameter.

used as a short tube, or as a large bead, and figure 232 is a well-finished and peculiarly formed Huronian slate pebble neatly bored.

STONE CARVING.

Aside from carvings made on stone pipes, we meet with few other specimens. Figure 233 is in gypsum, and has a strong dash of the European in its execution, rude as it is, but figure 234 is of hard limestone, and bears every

Fig. 233. Full size.

Fig. 234. Full size.

mark of aboriginal treatment, although the design is greatly superior to most attempts of the kind, and the head-dress has an un-Indian appearance. On one of the stone pipes, figure 114, a head is carved quite similar in style.

COPPER IMPLEMENTS, ETC.

All the copper used by the Indians was treated simply as a malleable stone, and neither melted nor smelted. As only native copper could be so employed, the

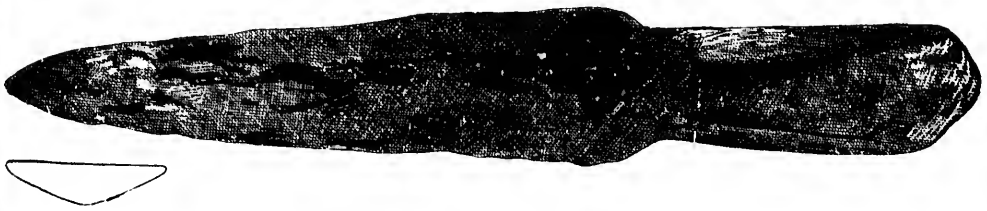


Fig. 235. Full size, with cross-section of blade.

material was procured from the shores of Lake Superior. Floating stories as to the moulding and tempering of aboriginal edge-tools made from copper are

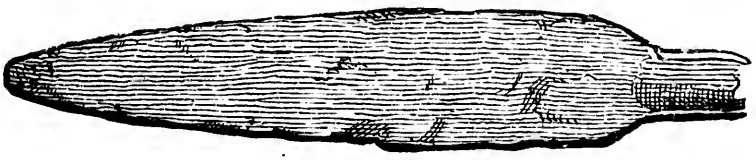


Fig. 236. Half diameter.

utterly without foundation. As a substance for tools and weapons it does not seem to have been much used, and for ornaments, even less. For the former

Fig. 237. Half diameter.

Fig. 238. Full size.

purpose its toughness was its chief recommendation, and for the latter, its brilliancy when polished. Chisels and axes of copper could be ground to a good

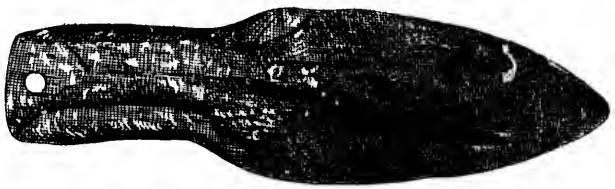


Fig. 239. Full size.

cutting edge, but one that would have to be renewed very frequently. Adzes, chisels and spears were almost the principal tools or weapons made of copper.

In the fabrication of these articles the Indians developed a new mechanical idea, viz., the formation of a socket for handle attachment (figures 235 to 240) in place

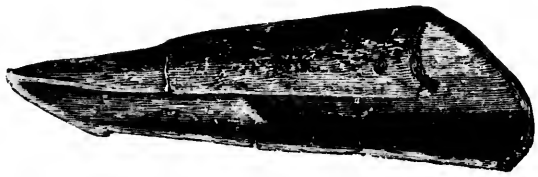


Fig. 240. Quarter diameter.

of the tine which originated with the flaking process, and was, indeed, a necessity of it. Such sockets were formed by merely bending the edges of the metal enough to give a hold to the inserted shaft or handle, and no attempt was made

Fig. 241. Half diameter.

to bring the edges together. A somewhat well-formed axe or adze with a socket of this kind was found on the Kaministiquia,* (figure 240), and is the heaviest tool of the kind in the Provincial Museum.

Fig. 242. Half diameter.

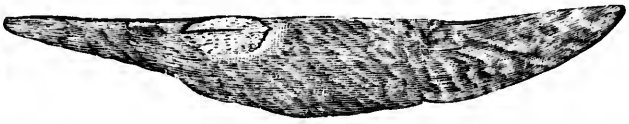


Fig. 243. Half diameter.

Occasionally a knife-like specimen is found (figures 242 to 244) the tine of which suggests a wooden or bone handle, but in figure 243 the tine itself is

Fig. 244. One-third diameter.

rounded on the edges as if for ease in grasping it. A most remarkable knife or saw form is shown at figure 245. When placed with the human remains it was carefully wrapped in beaver-skin, a portion of which is still adherent to it. Lance forms

*From this neighborhood also have come some long copper spikes, sharpened at both ends, one of which was no doubt fixed in a handle. At the end of a long pole one of these would have proved a most effective weapon.

similarly tined are shown at figures 246 to 250, all of which may have been used as knives, if, indeed, they were not merely articles of "braverie" for state occasions, and the same may be supposed of the axes or chisels, figures

Fig. 245. Half diameter.

Fig. 246. Two-thirds diameter.

Fig. 247. Half diameter.

Fig. 251. Half diameter.

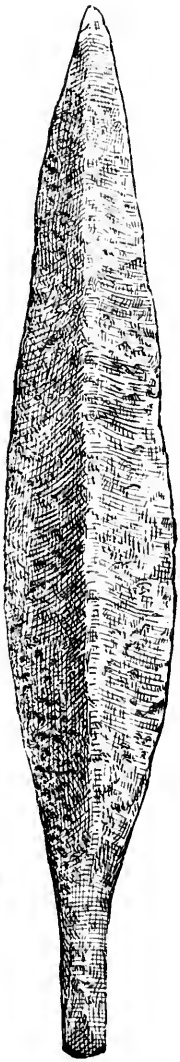


Fig. 248. Full size.

252 to 255, although a few of them look as if they might have been intended for cutting. 253 shows free silver, a most conclusive proof, if proof were required, that no smelting was resorted to.

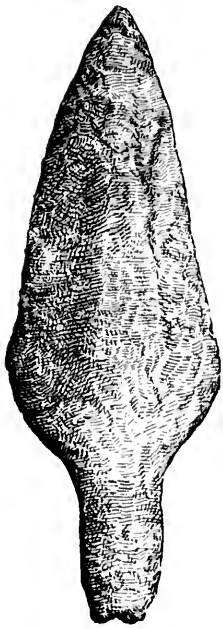


Fig. 249. Full size.

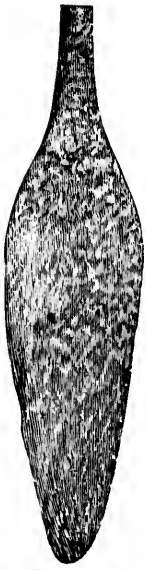


Fig. 250. Two-thirds diameter.

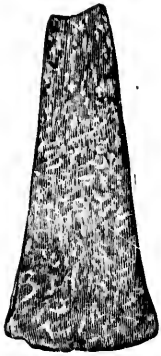


Fig. 252. Half dia.

Fig. 253.

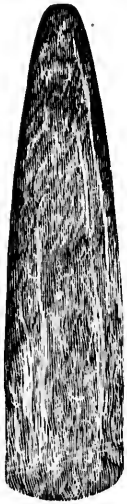


Fig. 254.

All about half diameter.

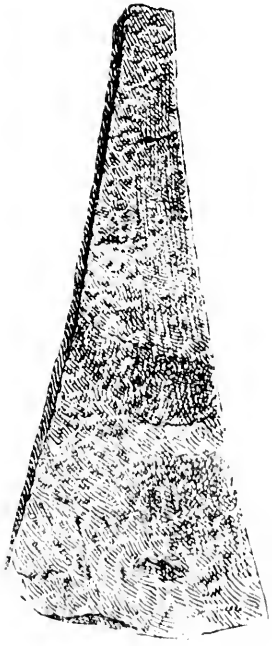


Fig. 255.

For ornamental purposes, as already remarked, the use of copper was very limited. Beads (figures 257 and 259) and (more rarely still) bracelets were made of it, and a few specimens have be found like pendants (figures 256 and 258.)

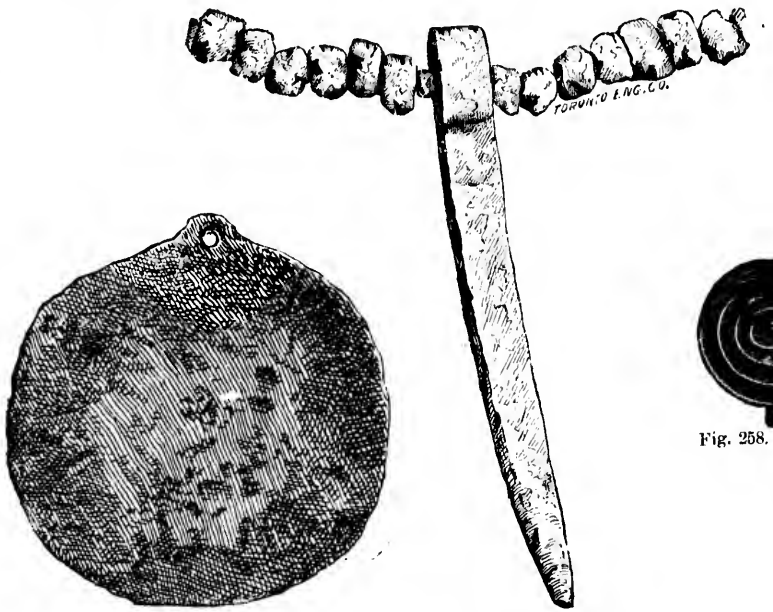


Fig. 256. Full size.

Fig. 257. Full size.

Fig. 258. Full size.

Recent studies of copper, more especially those of Mr. Clarence B. Moore of Philadelphia and Prof. Cushing of Washington, have thrown much new light on aboriginal methods of working in this metal, and it is now certain that not only did some southern tribes produce rude sheet copper, but that they had reached the art of riveting.

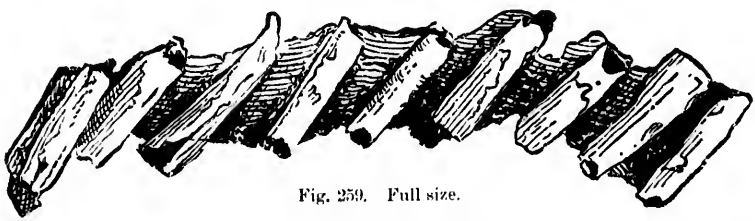


Fig. 259. Full size.

In this part of the continent, however, no such stage of mechanical advancement was attained in copper-working, if it was ever worked at all, for it may be that all we find was procured in its finished form near the source of supply.

STONE DISCS.

Stone discs (figures 260 to 263) of sizes varying from little more than an inch to three inches in diameter are sometimes found in Ontario, but their occurrence is not nearly so frequent as in some of the States. They may be perfectly

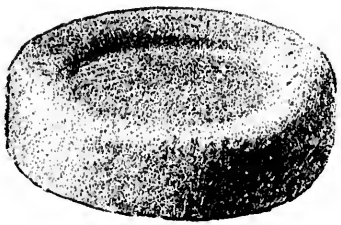


Fig. 260. Two-thirds diameter.

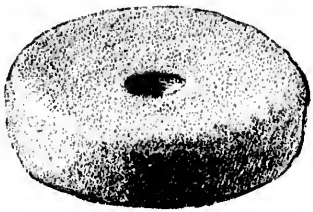


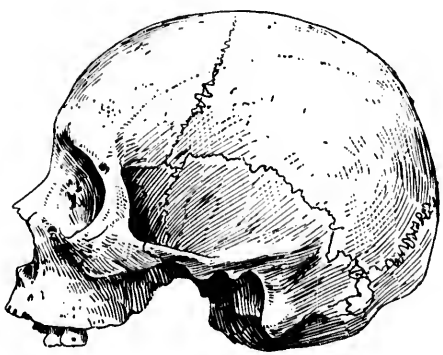
Fig. 261. Two-thirds diameter.

plain, or perforated in the centre, or hollowed on the sides. Those last mentioned (figure 260) are said to have been used in a game by being rolled

Fig. 262. Two-thirds diameter.

Fig. 263. Two-thirds diameter.

along the ground towards a mark. Perhaps the largest of the perforated discs (figure 261) were for a similar purpose, and it is not improbable that the smallest, like 262 and 263, were worn as beads or pendants.



Huron-Iroquois skull.

CONCLUSION.

The day is past when even intelligent men felt they could afford to laugh at geologists as "stone-breakers," and still more recently at archæologists as "grave-diggers." Lyell, Lubbock, De Nadaillac, Tylor, Hale, Brinton, and scores of other distinguished writers have shown, directly or indirectly, how intimately archæology is related to ethnology. But such proof was hardly necessary, one might suppose, when, by the light of modern science, he may predicate much concerning the people whose arms, tools, and utensils he is privileged to examine. Something of this sort has, indeed, always been possible, but only in a very general way, and quite valueless in regard to problems affecting the unity and diversity of races, their comparative standing at different periods or in different places, their capacity for development, and their relationship to man, as we know him to-day, whether at his best or at his worst.

In the pursuit of this study language holds a deservedly high place, perhaps the highest, but after the archæology of words has completed its task, much remains to be performed through the archæology of things, and it happens, not unfrequently, that only by the latter is it possible to effect any results at all. Languages and dialects many must have lived and died previous to 1492, as others have since that date, and all that remains to represent the old-time speakers consists, it may be, in a few stone hammers, a few flaked flints, a bone needle or two, and some sherds of rude pottery. In the Old World it is the same, and there we find the ancient cave and lake dwellings, the kitchen-middens, and the barrows closely scrutinized that they may yield every particle of evidence they contain concerning our "rude forefathers," rude, indeed, in a sense not contemplated by the poet.* There, the word-archæologist is at a serious disadvantage; here he is fortunately able to institute comparisons between numerous well-attested old forms, and the usage of living tongues. There, however, on account of the belief that pre-historic races are either extinct or only remotely connected with living ones, a peculiar interest attaches itself to the pursuits of the archæologist proper. Here, on the contrary, owing to the one fact that we have numerous representatives of the aborigines living, and to the other fact that savage life as we see it exemplified in most cases, is neither romantic nor otherwise attractive, too many people find it difficult to dissociate the study of the past and the present, and far less are they prepared to admit that observations made among the living are worthy of a moment's consideration. To them it is not true that 'the proper study of mankind is man," but only wheat, cattle, merchandise, or manufactures. Still, the proportion of those who take this view in Ontario is probably less than in any other country in the world, thanks to our educational system, and the consequently high average measure of intelligence, and it is therefore not surprising to find so large a number of persons who take a deep, intellectual interest in all that concerns primitive life in America. To this class thanks are due for information and active assistance given towards forming a Provincial Archæological Museum. The names of these coadjutors are too numerous to give here, but they have appeared from time to time in the Archæological Reports.

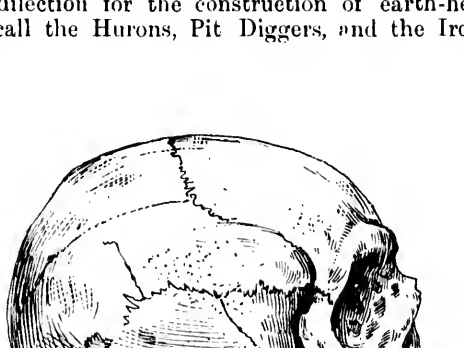
No claim is set up that the study of Indian archæology in Ontario is of a superior kind as compared with the study of early life exemplified by its relics

* "Each in his narrow cell forever laid,
The rude forefathers of the hamlet sleep."
—Gray's Elegy.

in any other part of the world; indeed, no proper comparison of this sort can be made. Aboriginal peop es everywhere present points of similarity and difference, and each people must be observed separately, or as one of a group into which it may naturally fall. What we do claim for the study here is that, independent of its general value as an ethnological factor, the duty is plainly ours to investigate the ground that forms our own country, to collect material for the examination of all who are now, or who may become, students, and to record results faithfully as an addition to the common stock of knowledge.

On the broad platform of humanity we are quite as much concerned regarding results deducible from investigations carried on in Madagascar, Mashonaland, New Zealand, Korea, or Fiji, but while others are doing their share of the work in these parts of the world, it is surely only right and reasonable that we should do ours at home. If we do not, outsiders will hardly permit so rich a field to lie fallow very long. Indeed, a considerable amount of work has already been accomplished in the province by foreigners. Officials and attaches of the Smithsonian Institution have pursued linguistic studies at numerous points, besides having done some exploring for archæological purposes, and it is well known that as far back as fifty years, German *savants* opened ossuaries in the county of Wentworth, and met with much success in their quest for relics to illustrate early life in America.

Perhaps more nonsense has been penned about the American Indian that about the natives of any other country or continent. His origin, his condition, his capabilities, and his destiny have supplied fruitful themes for theorists. The word Indian itself is nearly always used as if there was little or no difference among the tribes or nations so-called, while on the other hand there was for a long time a disposition to impose upon us a fictitiously specialized race known as the Mound Builders. The truth is that Indians, while possessing many points of agreement in character, presented as much tribal divergence as one may find among any savage people anywhere else, and the Mound Builders were only Indians with a predilection for the construction of earth-heaps. For similar reasons we might call the Hurons, Pit Diggers, and the Iroquois, Longhouse Makers.



Huron-Iroquois skull.

APPENDIX.

The following citations from the Travels of Peter Kalm are interesting. This traveller paid much more attention to sociological details than did many who preceded him, and whose opportunities were infinitely superior. Considerable allowance, however, must be made for the fact that even in his day many aboriginal habits had become modified, and some had wholly fallen into disuse. In cases of this kind it is surprising how soon the natives themselves not only lose all knowledge of former practices, but even adopt the absurd theories or beliefs of white men. Confusion of ideas begins in the second generation following desuetude, and utter forgetfulness speedily succeeds. Nor is this to be wondered at among a people devoid of power to record their thoughts otherwise than by means of rude pictographs. I have met several Indians who had never heard of scalping, and who showed much interest in learning how it was done.

A.

Kalm. Travels into North America—(1748-50), Vol. II., p. 37, London, 1771.

Their hatchets were made of stone. . . . . They are made like a wedge sharp at one end, but rather blunter than our wedges. As this hatchet must be fixed on a handle, there was a notch made all round the thick end. To fasten it, they split a stick at one end, and put the stone between it, so that the halves of the stick came into the notches of the stone; then they tied the two split ends together with a rope or something like it, almost in the same way as smiths fasten the instrument with which they cut off iron, to a split stick.* Some of these stone hatchets were not notched or furrowed at the upper end, and it seems they only held those in their hands in order to hew or strike with them, and did not make handles to them. Most of the hatchets which I have seen, consisted of a hard rock stone; but some were made of a fine, hard, black, apyrous stone. When the Indians intended to fell a thick, strong tree they could not make use of their hatchets, but for want of proper instruments employed fire. They set fire to a great quantity of wood at the roots of the tree and made it fall by that means. But that the fire might not reach higher than they would have it, they fastened some rags to a pole, dipped them into water, and kept continually washing the tree, a little above the fire. Whenever they intended to hollow out a thick tree for a canoe, they laid dry branches all along the stem of the tree, as far as it must be hollowed out. They then put fire to those dry branches, and as soon as they were burnt they were replaced by others. While these branches were burning, the Indians were very busy with wet rags, and pouring water upon the tree, to prevent the fire from spreading too far on the sides and at the ends. The tree being burnt hollow as far as they found it sufficient, or as far as it could without damaging the canoe, they took the above described stone hatchets, or sharp flints and quartzes, or sharp shells, and scraped off the burnt part of the wood, and smoothened the boats within. By this means they likewise gave it what shape they pleased. . . . . The chief use of their hatchets was, according to the accounts of all the Swedes,† to make good fields for maize

* This is white man's lore. Even smiths never attached handles in this way. They twisted a withe round the head of the tool, and the ends when brought together formed the handle, which was usually from one to two feet long, and bound with iron rings, one close to the head, one at the end, and sometimes one in the middle.

† A colony of Swedes settled at an early date in the southern portions of New York and Pennsylvania, then called New Sweden.

plantations; for if the ground where they intended to make a maize field was covered with trees, they cut off the bark all round the trees with their hatchets, especially at the time when they lose their sap. By that means the tree became dry, and could not take any more nourishment, and the leaves could no longer obstruct the rays of the sun from passing. The smaller trees were then pulled out by main force, and the ground was a little turned up with crooked or sharp branches.

B.

VOL. II., p. 41. CLAY AND STONE POTS.

"The old boilers or kettles of the Indians were either made of clay or of different kinds of pot-stone (*Lapis ollaris*). The former consisted of a dark clay, mixed with grains of white sand or quartz, and burnt in the fire. Many of these kettles have two holes in the upper margin, on each side, through which the Indians put a stick, and held the kettle over the fire as long as it was to boil. Most of the kettles have no feet . . . . A few of the oldest Swedes could yet remember seeing the Indians boil their meat in these pots."

The following sentence refers to stone pots, but the description is somewhat confused and contradictory: "They are very thin and of different sizes; they are made sometimes of a greenish, and sometimes of a grey pot-stone; and some are made of another species of apyrous stone: the bottom and the margin are frequently above an inch thick.*

C.

VOL. III., p. 272. CLAY AND WOODEN POTS.

Kettles of copper or brass, sometimes tinned in the inside. In these the *Indians* now boil their meat, and they have a very great run† with them. They formerly made use of earthen or wooden pots, and threw in red-hot stones to make them boil.

D.

VOL. II., p. 95, *et seq.* FOOD.

"Some of the old *Swedes* were yet alive, who in their younger years had an intercourse with the *Indians*, and had seen the minutiæ of their economy; I was, therefore, desirous of knowing which of the spontaneous herbs they made use of for food at that time; and all the old men agreed that the following plants were what they chiefly consumed:

HOPNISS or *Hapniss* was the Indian name of a wild plant which they ate at that time. . . . The roots resemble potatoes, and were boiled by the Indians, who eat them instead of bread. Some of the Swedes at that time, likewise ate this root for want of bread. Some of the English still eat them instead of potatoes. *Mr. Bartram* told me that the *Indians* who live further in the country do not only eat these roots, which are equal in goodness to potatoes, but likewise take the peas which lie in the pods of this plant, and prepare them like common peas. Dr. Linnæus calls the plant *Glycine Apios*.

* A fine specimen of such a vessel made from a coarse soapstone may be seen in our collection. It was found in West Virginia. Ruder forms from the District of Columbia were procured by exchange from the Smithsonian Institution.

† That is, the French have a very rapid sale for such kettles among the Indians.

KATNISS is another *Indian* name of a plant, the r . of which they were likewise accustomed to eat when they lived here. It ws in low, muddy and very wet ground. The root is oblong, commonly ani and a half long, and an inch and a quarter broad in the middle; but some of the roots have been as big as a man's fist. The *Indians* either boiled this root or roasted it in hot ashes. . . . . The taste was nearly the same with that of potatoes. When the *Indians* come down to the coast, and see the turnips of the *Europeans*, they likewise give them the name of *Katniss*. Their Katniss is an arrow-head or *Sagittaria*, and is only a variety of the Swedish arrow-head, or *Sagittaria sagittifolia*, for the plant above the ground is entirely the same, but the root underground is much greater in the *American* than in the *European*.

TAW-HO and *Taw-him* was the *Indian* name of another plant which they eat. Some of them likewise called it *Tuckah*. . . . The roots often grow to the thickness of a man's thigh.[*] When they are fresh they have a pungent taste, and are reckoned a poison in that fresh state. Nor did the Indians ever venture to eat them raw, but prepared them in the following manner: They gathered a great heap of these roots, dug a great long hole, sometimes two or three fathoms and upwards in length, into which they put the roots, and covered them with the earth that had been taken out of the hole; they made a great fire above it, which burnt till they thought proper to remove it; and then they dug up the roots, and consumed them with great avidity. These roots when prepared in this manner, I am told, taste like potatoes. . . . This *Taw-ho* is the *Arum Virginicum*, or *Virginian* Wake-robin. . . . . .

TAW-KEE is another plant, so-called by the *Indians* who eat it. Some of them call it *Taw-kim*, and others *Tuckvim*. . . . . The *Indians* pluck the seeds and keep them for eating. They cannot be eaten fresh or raw, but must be dried. The *Indians* were forced to boil them repeatedly in water, before they were fit for use; and then they ate them like pease. . . . . This *Taw-kee* was the *Orontium aquaticum*.

BILBERRIES were likewise a very common dish among the Indians. They are called Huckleberries by the *English* here. . . . . The *Indians* formerly plucked them in abundance every year, dried them either in the sunshine or by the fire-side, and afterwards prepared them for eating, in different manners. . . . . On my travels through the country of the Iroquese, they offered me, whenever they designed to treat me well, fresh maize-bread, baked in an oblong shape, mixed with dried *Huckleberries* which lay as close in it as the raisins in a plumb-pudding.

E.

Vol. II., p. 114. INDIAN CORN.

The *Indians* had their little plantations of maize in many places.

F.

VOL. II., p. 116. DRINK.

They likewise prepared a kind of liquor, like milk, in the following manner: They gathered a great many hickory nuts and walnuts from the black walnut-trees, dried and crushed them; then they took out the kernels, pounded them so fine as flour, and mixed this flour with water, which took a milky hue from them and was as sweet as milk.

G.

Vol. II., p. 116. Clay Pipes.

They had tobacco-pipes of clay, manufactured by themselves, at the time the *Swedes* arrived here; they did not always smoke true tobacco, but made use of another plant instead of it, which was unknown to the old Swedes, but of which he assured me is not the common mullein, or *Verbascum Thapsus*, which is generally called *Indian Tobacco* here.

H.

Vol. II., p. 117.—Religion.

"As to their religion, the old man* thought it very trifling, and even believed that they had none at all; when they heard loud claps of thunder they said that the evil spirit was angry; some of them said they believed in a God who lives in heaven. The old *Swede* once walked with an *Indian*, and they met with a red-spotted snake on the road; the old man therefore went to seek a stick in order to kill the snake, but the *Indian* begged he would not touch it because he adored it. Perhaps the Swede would not have killed it, but on hearing that it was the *Indian's* deity, he took a stick and killed it in the presence of the *Indian*, saying: 'Because thou believest in it, I think myself obliged to kill it.'"†

I.

Vol. II., p. 261.—Wampum.

Many people at *Albany* make the *Wampum* of the *Indians*, which is their ornament and money, by grinding some kinds of shells and mussels; this is a considerable profit to the inhabitants.

J.

Vol. III., p. 273. Wampum.

Wampum, or as they are here called, *porcelains*. They are made of a particular kind of shells, and turned into little short cylindrical beads, and serve the *Indians* for money and ornament.

K.

Vol. III., p. 178.—The Hurons.

Quebec, August the 21st, 1749.

To-day there were some people of three *Indian* nations in this country with the Governor-General, viz., Hurons, Mickmacks and Anies,‡ the last of which are a nation of the Iroquese and allies of the *English*, and were taken prisoners in the last war.

The Hurons are some of the same *Indians* with those who live at *Lorette*, and have received the Christian religion. They are tall, robust people, well-

* The informant of Peter Kalm, in these points, was one Nils Gustafson, ninety-one years of age. As this was in 1749, the references no doubt extended well back into the previous century.

† A few "old Swedes" survive.

‡ "Probably Onidoes," Kalm says in a foot-note; and this supposition is confirmed when, in describing them, he says: "They are as tall as the Hurons, whose language they speak."

shaped, and of a copper color. None of them wear hats or caps. Some have earrings, others not. Many of them have the face painted all over with vermillion; others have only strokes of it on the forehead and near the ears; and some paint their hair with vermillion. Red is the color they chiefly make use of in painting themselves; but I have likewise seen some who had daubed their face with a black color. Many of them have figures in the face and on the whole body, which are stained into the skin so as to be indelible. The manner of making them shall be described in the sequel.* These figures are commonly black; some have a snake painted in each cheek, some have several crosses, some an arrow, others the sun, or anything else their imagination leads them to. They have such figures likewise on the breast, thighs and other parts of the body; but some have no figures at all. They wear a shirt which is either white or checked, and a shaggy piece of cloth, which is either blue or white, with a blue or red stripe below. This they always carry over their shoulders, or let it hang down, in which case they wrap it round their middle. Round their neck they have a string of violet wampums, with little white wampums between them. These wampums are small, of the figure of oblong pearls, and made of the shells which the *English* call clams (*Venus Mercenaria*, Linn.) I shall make a more particular mention of them in the sequel. At the end of the wampum strings, many of the *Indians* wear a large French silver coin, with the King's effigy, on their breasts. Others have a large shell on the breast, of a fine white color, which they value very high, and is very dear; others, again, have no ornament at all round the neck. They all have their breasts uncovered. Before them hangs their tobacco-pouch, made of the skin of an animal, and the hairy side turned outwards. Their shoes are made of skins. . . . . Instead of stockings, they wrap the legs in pieces of blue cloth, as I have seen the *Russian* boors do.

Of the Anies (or Oneidas, a name then often applied to the Iroquois as a whole) he says: "They are as tall as the Hurons, whose language they speak. The Hurons seem to have a longer, and the Anies a rounder face. The Anies have something cruel in their looks, but their dress is the same as that of the other *Indians*. They wear an oblong piece of tin between the hair, which lies on the neck. One of those I saw had taken a flower of the rose mallow out of a garden, where it was in full bloom at this time (August), and put it among the hair at the top of his head. Each of the Indians† has a tobacco pipe of grey limestone, which is blackened afterwards, and has a long tube of wood."

Elsewhere he describes the blackening process as being accomplished by smearing the pipe with grease, and holding it over a flame.

L.

Vol. III., p. 230.—Stone Pipes.

Of red-stone (catlinite) pipes, Kalm says: "The Indians commonly value a pipe of this kind as much as a piece of silver of the same size; and sometimes they make it still dearer."

Pierre a Calumet.—This is the French name of a stone disposed in strata between the lime-slate, and of which they make all the tobacco pipe-heads in the country. . . . . When the stone is long exposed to the open air, or heat

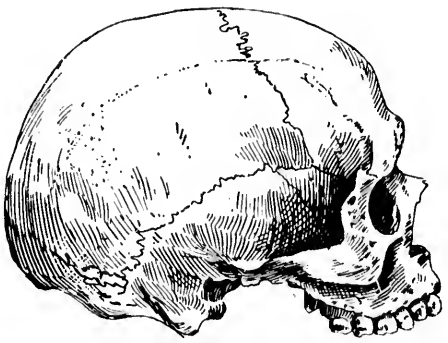
* This is a form of promise made quite frequently by Mr. Peter Kalm in his three volumes, but which he seldom keeps. In this case he does not.

† As this comes in without a break in the paragraph relating to the Oneidas, it appears at first to refer to them only; but no doubt it is intended to include all the representatives of the three tribes mentioned.

of the sun, it gets a yellow color; but in the inside it is grey.* It is a limestone of such compactness that its particles are not distinguishable to the naked eye. It is pretty soft, and will bear cutting with a knife. From this quality the people likewise judge of the goodness of the stone for tobacco pipe heads, for the hard pieces of it are not so fit for use as the softer ones. . . . . All the tobacco pipe-heads, which the common people in *Canada* make use of, are made of this stone, and are ornamented in different ways. A great part of the gentry likewise make use of them, especially when they are on a journey. The *Indians* have employed this stone for the same purposes for several ages past, and have taught it to the Europeans. The heads of the tobacco pipes are naturally of a pale grey color; but they are blackened whilst they are quite new, to make them look better. They cover the head all over with grease, and hold it over a burning candle, or any other fire, by which means it gets a good black color, which is increased by frequent use. The tubes of the pipes are always made of wood.†

*In the Quebec group there are several of the series described as "grey limestone conglomerate, weathers to a brownish color, and is probably dolomitic."—Geology of Canada, 1863; pp. 227-8.

†In the Archæological Museum, Toronto, there are some specimens of limestone pipes, both colored and uncolored. Several excellent tubes (not pipe stems) are also made of a fine light grey limestone, resembling German lithographic stone. The yellow or brownish effect of exposure may be seen on one or two of them.



Huron-Iroquois skull.